



FLOOD WARNING in QUEENSLAND

This brochure describes the flood warning system operated by the Commonwealth Bureau of Meteorology throughout Queensland. It assists individuals and agencies responsible for managing and responding to flood disasters to understand the flood warning system. More details are given in specific information brochures describing the warning system for each River Basin.



*The Balonne River in flood at Surat, Queensland. January 1996.
Photo courtesy of Wimera Aviation.*

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(Last updated May 2011)

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Flood Warning

Flood warning is an integral component of counter disaster arrangements for a community at risk from flooding.

The aim of the warning system is to minimise loss of life and property damage by warning people of the likelihood and size of a flood so that they may evacuate, shift property or stock to higher ground, or implement other temporary flood loss reduction measures.

Warnings are of limited value unless they are delivered in a timely and effective manner and property owners and residents in the flood-threatened area believe the warning and take appropriate action in advance of being flooded.

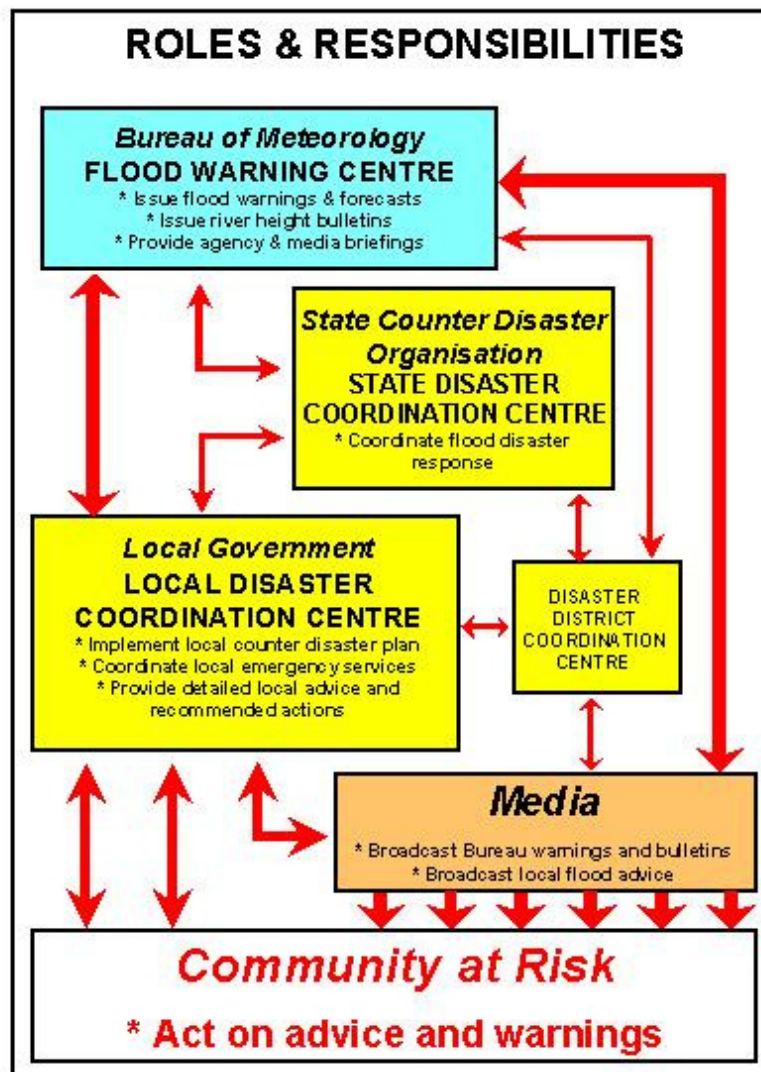
Roles & Responsibilities

The responsibility for flood forecasting and warning services in Australia rests with the Commonwealth Bureau of Meteorology.

In Queensland, the effectiveness of the flood warning system depends on the cooperative involvement of the Bureau of Meteorology, State Government agencies and Local Government working with flood-threatened communities.

The Queensland Flood Warning Consultative Committee (FWCC) is a joint Commonwealth, State and Local Government Committee which coordinates the development and operation of flood warning services in Queensland.

The roles of the primary agencies involved in the flood warning system, as recommended by the FWCC, are outlined in the figure below.



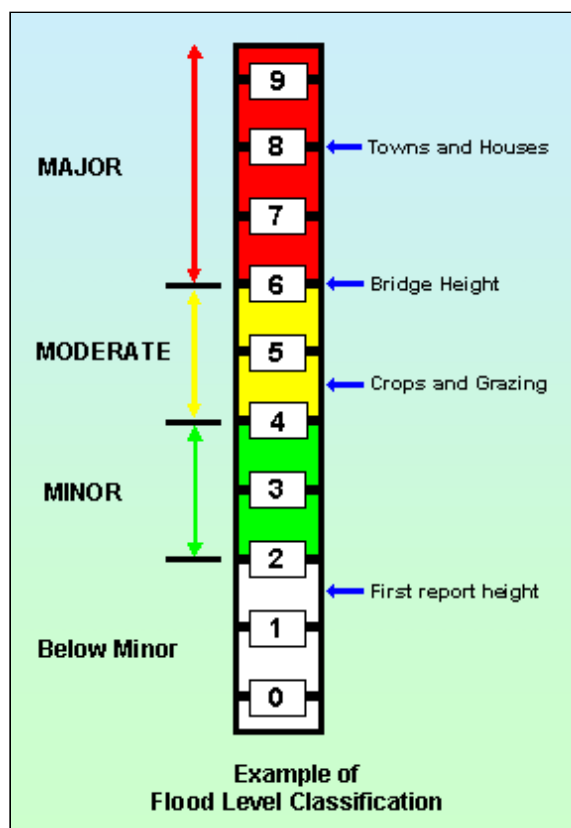
Flood Classifications

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.

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.



The zero level of a river gauge ("gauge zero") is typically set at the low flow level of the stream, i.e. the water level of the stream after a long dry spell. River heights are measured in metres above the gauge zero. For example, a river height reading of 5 metres means that the water level has risen 5 metres above its lowest level. In tidal areas, the gauge zero may be set at the mean tide level.

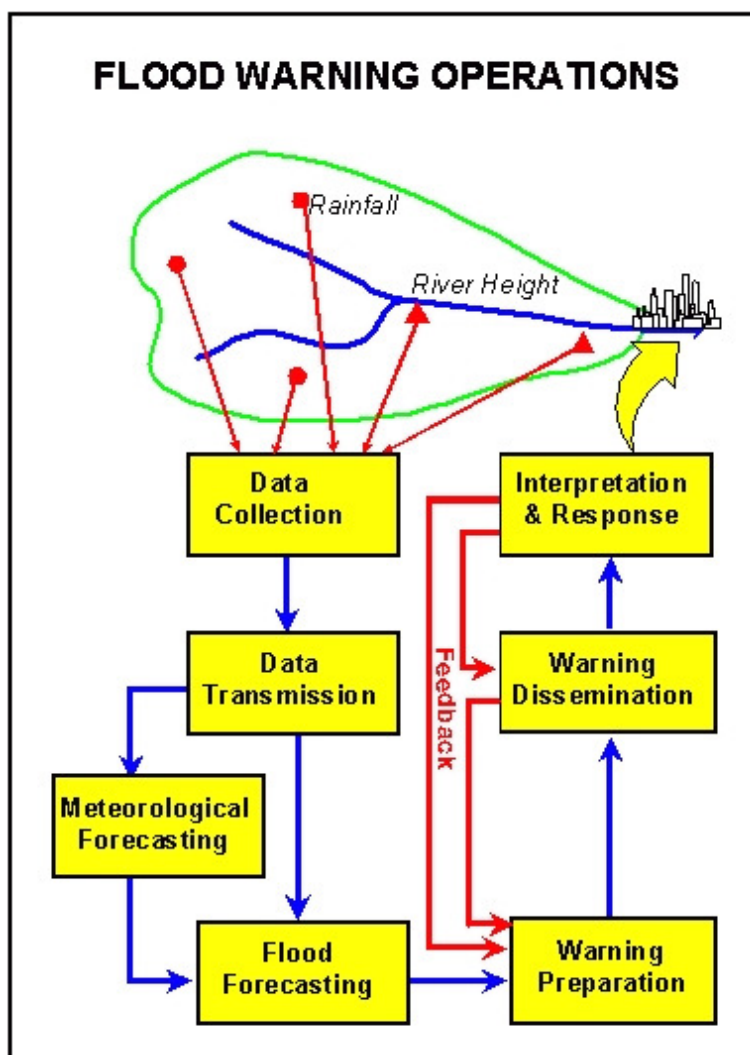
Each river height can be converted to its equivalent on Australian Height Datum (AHD) by applying the AHD value of the gauge zero. Contact the Bureau of Meteorology if this is required.

Flood Warning Operations

The development and provision of flood warning services in Queensland is the role of the Bureau's Flood Warning Centre in Brisbane.

The Flood Warning Centre operates up to 24 hours per day depending on the severity and extent of flooding.

The basic components of the flood forecasting system are shown in the diagram below.



Data Collection & Transmission

Rainfall and river height data is collected from over 1000 sites throughout Queensland via radio and telephone telemetry from automatic stations and via telephone-computer links from volunteer observers.

Meteorological & Hydrological Forecasting

The collated data is analysed using a range of techniques including simple empirical relationships and complex computer catchment simulation models to predict the likely timing and severity of flooding. The impact of forecast weather and rainfall conditions is also assessed.

Flood Warning Services

- River Height Bulletins.
These contain the latest observed river heights at selected locations within a river basin and are issued regularly.

- **Flood Warnings**
Flood Warnings contain a summary of existing conditions within a river basin and predictions of river heights at key locations (towns, bridges, rural centres).
- **Professional Advice**
FWC staff provide direct assessments of flood conditions to emergency agencies and Local Government officers.
- **Media Briefings**
Extensive briefing of radio television and newspapers news services are provided as requested.

Flood Warnings and River Height Bulletins

The Bureau of Meteorology issues Flood Warnings and River Height Bulletins for most Queensland river basins regularly during floods.

They are sent to radio stations for broadcast, and to the local Councils, emergency services and a large number of other agencies involved in managing flood response activities. They 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)

River Basin Information

River basin brochures which contain more detailed information such as flood level classifications, flood history, peak flood heights and maps have been prepared for most river basins in Queensland. They are available via the [Queensland Flood Warning Centre](#) page.

Futher Information

For further information, contact:

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

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