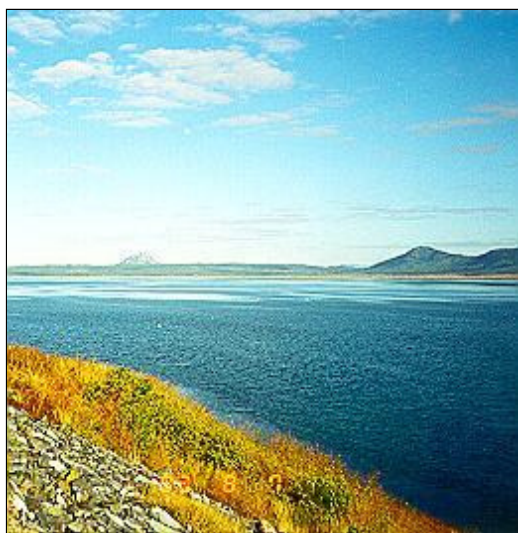




FLOOD WARNING SYSTEM for the PROSERPINE RIVER

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



Contained in this document is information about:
(Last updated November 2010)

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Peter Faust Dam

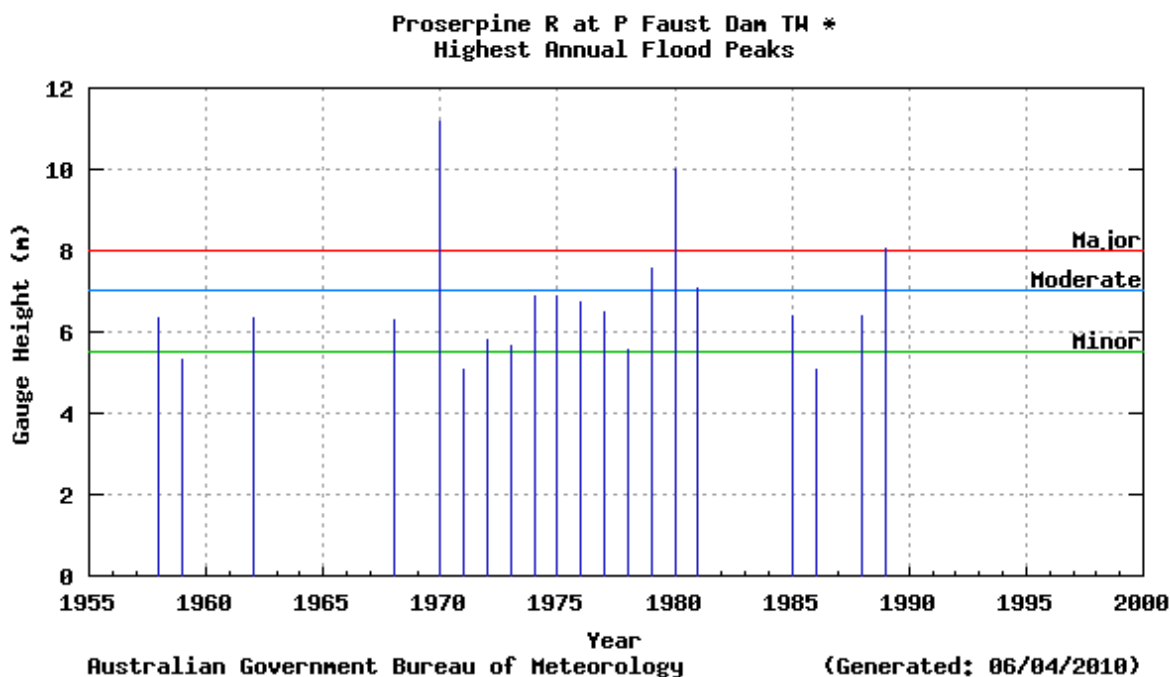
Flood Risk

The Proserpine River has a total catchment area of approximately 470 square kilometres. Originally levee banks were constructed by landholders along the river to protect valuable cane lands, but subsequent overtopping and breaching of the levees in major flood events led to the planning and construction of a flood mitigation dam on the river.

Peter Faust Dam is an earth and rockfill embankment 50 metres high, located on the Proserpine River about 27 kilometres upstream of Proserpine. The Dam, was commissioned in the early 1990s, and commands approximately 75% of the catchment area and operates as a flood mitigation dam. It has significantly reduced the frequency and severity of floods in the Proserpine River.

Previous Flooding

The figure below shows the annual peak heights which have occurred at the tailwater gauge of the Peter Faust Dam since records began in 1956. The highest recorded flood of 11.16 metres was the result of Cyclone Ada which occurred in January 1970.



Flood Forecasting

The Bureau of Meteorology operates a flood warning system for the Proserpine 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 automatic telephone telemetry stations at the Peter Faust Dam and Proserpine, which are operated by the Department of Environment and Resource Management.

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

Local Information

The Whitsunday Regional Council is able to provide further information on flooding in your area of the Proserpine River catchment.

Flood Warnings and Bulletins

The Bureau of Meteorology issues Flood Warnings and River Height Bulletins for the Proserpine 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/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 Proserpine River catchment - it contains the flood gauge heights of the more significant recent floods.

River height station	Mar 1985	Feb 1988	Mar 1988	Jul 1988	Apr 1989	Jan 1993	Feb 2000	Jan 2005
Peter Faust Dam* (Headwater)	-	-	-	-	-	-	-	-
Peter Faust Dam (Tailwater)	6.41	5.36	6.40	5.40	8.04	2.30	2.33	2.37
Crystal Brook	5.0	4.0	5.10	3.80	7.0	-	-	-
Proserpine*	-	-	-	-	-	4.28	3.96	4.57

All heights are in metres on flood gauges.

[*] No significant floods have been recorded since the Peter Faust Dam (Headwater) and Proserpine stations were installed in 1990.

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

PROSERPINE RIVER CATCHMENT - ASSESSMENT OF THE FLOOD POTENTIAL

Major flooding requires a large scale rainfall situation over the Proserpine River catchment. However, the Peter Faust Dam has a significantly reduced the effect of major flooding in the lower reaches. The following can be used as a rough guide to the likelihood of flooding in the catchment:

Average catchment rainfalls in excess 200mm in 24 hours, may result in stream rises and the possibility of moderate to major flooding and local traffic disabilities in the lower reaches of the Proserpine River below the Peter Faust Dam and extending downstream to Proserpine.

Average catchment rainfalls in excess 300mm in 24 hours, may result in significant stream rises and the possibility of major flooding and local traffic disabilities in the lower reaches of the Proserpine River below the Peter Faust Dam and extending downstream to Proserpine.

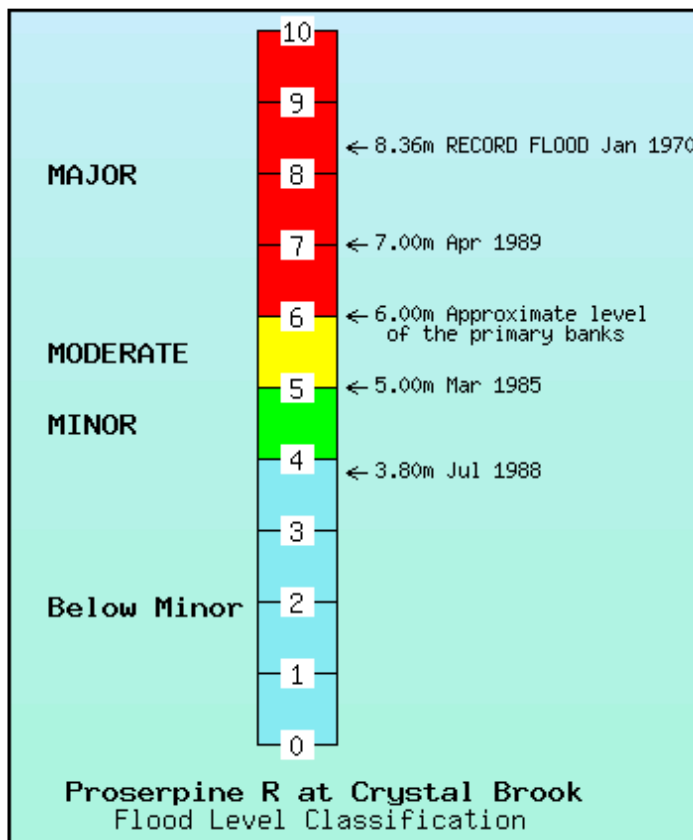
Flood Classifications

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 Proserpine River catchment.

River Height Station	First Report Height	Crossing Height	Minor Flood Level	Crops & Grazing	Moderate Flood Level	Towns and Houses	Major Flood Level
Peter Faust Dam (Headwater)	0.0	0.0 (S)	3.5	-	6.0	-	8.0
Peter Faust Dam (Tailwater)	-	-	5.5	-	7.0	-	8.0
Crystal Brook	3.0	-	4.0	-	5.0	-	6.0
Proserpine	-	-	7.0	-	8.0	-	9.0

All heights are in metres on flood gauges.
(B) = Bridge

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 Proserpine River flood warning network

Click here to view map as: [PNG](#) [PDF](#) (512K bytes)

For further information, contact:

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

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