

Fitzroy River

This brochure describes the flood risk and previous flooding in the Fitzroy River Catchment, last updated in July 2025.

Flood Risk

Due to its large catchment area (~140,000 km²) and fan-like shape, the Fitzroy River Catchment is prone to severe flooding following prolonged heavy rainfall events. Its major tributaries, the Dawson, Mackenzie, Isaac and Connors rivers rise in the eastern coastal ranges and in the Great Dividing Range and join about 100 kilometres west of Rockhampton. Major floods can result from either the Dawson or the Connors-Isaac-Mackenzie rivers. Significant flooding in the Rockhampton area can also occur from heavy rain in the local area downstream of Riverslea.

The headwaters of the Connors-Isaac River catchment are susceptible to high rainfall totals, with coastal rainfall often affecting the Mackay hinterland and Cardowan Range. The Connors-Isaac River headwaters area typically produces the peak flow runoff which ultimately causes Rockhampton's flood to peak usually between 7 to 10 days later (sometime in combination with high Dawson River flows).

The main population centres at higher risk of extensive urban inundation are Rockhampton, Emerald, Biloela, Taroom, and Theodore.

Fairbairn Dam is Queensland's second largest dam and is located on the Nogoia River upstream of Emerald. It was constructed in 1972 and is owned by SunWater, with the main purposes being for irrigation, water supply and flood mitigation. Lake Maraboon, the resulting reservoir, has a capacity of approximately 3 times that of Sydney Harbour.

High level flooding along the Dawson River can require total evacuation of Theodore (aerial evacuation in 2010/11) and a similar situation along the Nogoia River has potential to cause evacuation (by rail) of Emerald township from the western side to the eastern side of the River. Extensive flooding of coal mining and agricultural infrastructure occurs on the floodplains of the Nogoia, Comet, Mackenzie and Dawson Rivers.

Flash flood risk locations include:

- Banana Shire: Biloela, Jambin, Goovigen, Wowan;
- Central Highlands: Gemfields (Rubyvale and Sapphire), Isaac Region: Cardowan, Dysart, Moranbah, Nebo

Flash flooding particularly in the Gemfields creeks to the west of Emerald, including at Rubyvale and Sapphire, poses a high risk to life of communities and prospectors, i.e., camping on dry riverbeds.

Previous Flooding

The Fitzroy River at Rockhampton has a long and well documented history of flooding with flood records dating back to 1859. The highest recorded flood occurred in January 1918 and reached 10.11 metres on the Rockhampton gauge. Over the last fifteen years Rockhampton has exceeded the major flood level three times (2011, 2013, and 2017 (TC Debbie)); with the most significant of these three being 2011 when the Fitzroy River reached 9.20 metres on the Rockhampton gauge. This period also provided the towns of Emerald, Rolleston and Theodore with their largest floods on record. Several hundred properties in Jambin and Biloela were flooded during the TC Marcia flood event in 2015. Biloela Alert station recorded 8.2 metres (4 m above its major level) in February 2021.

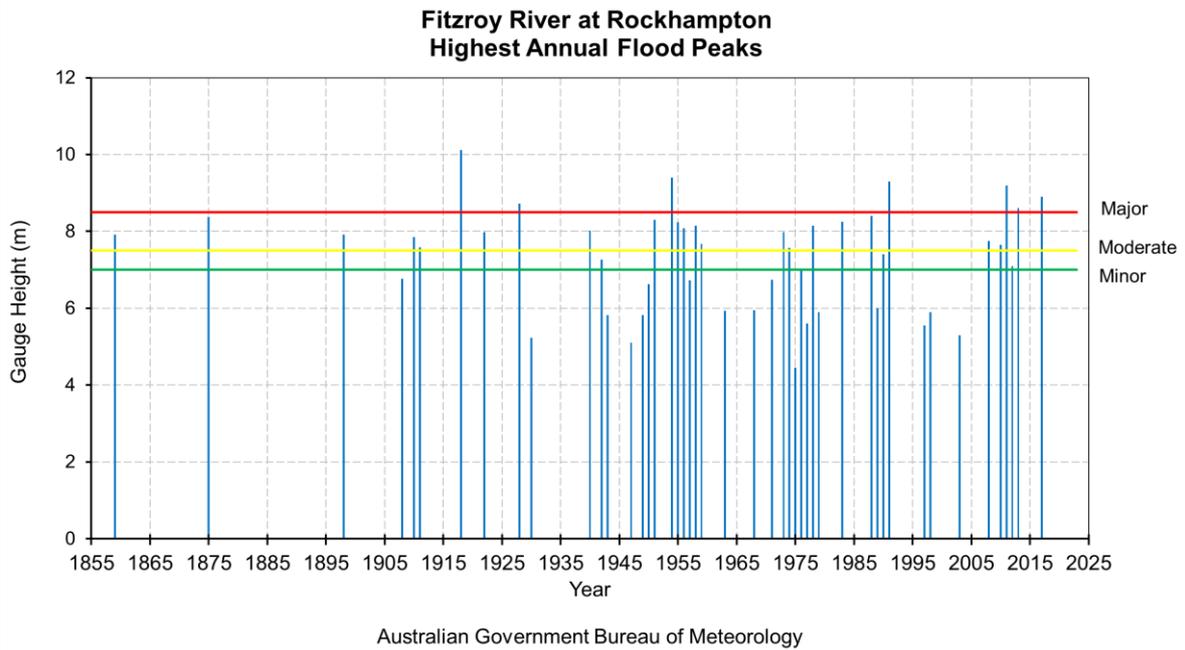
Other significant flood events of note include 1954 and December 2010.

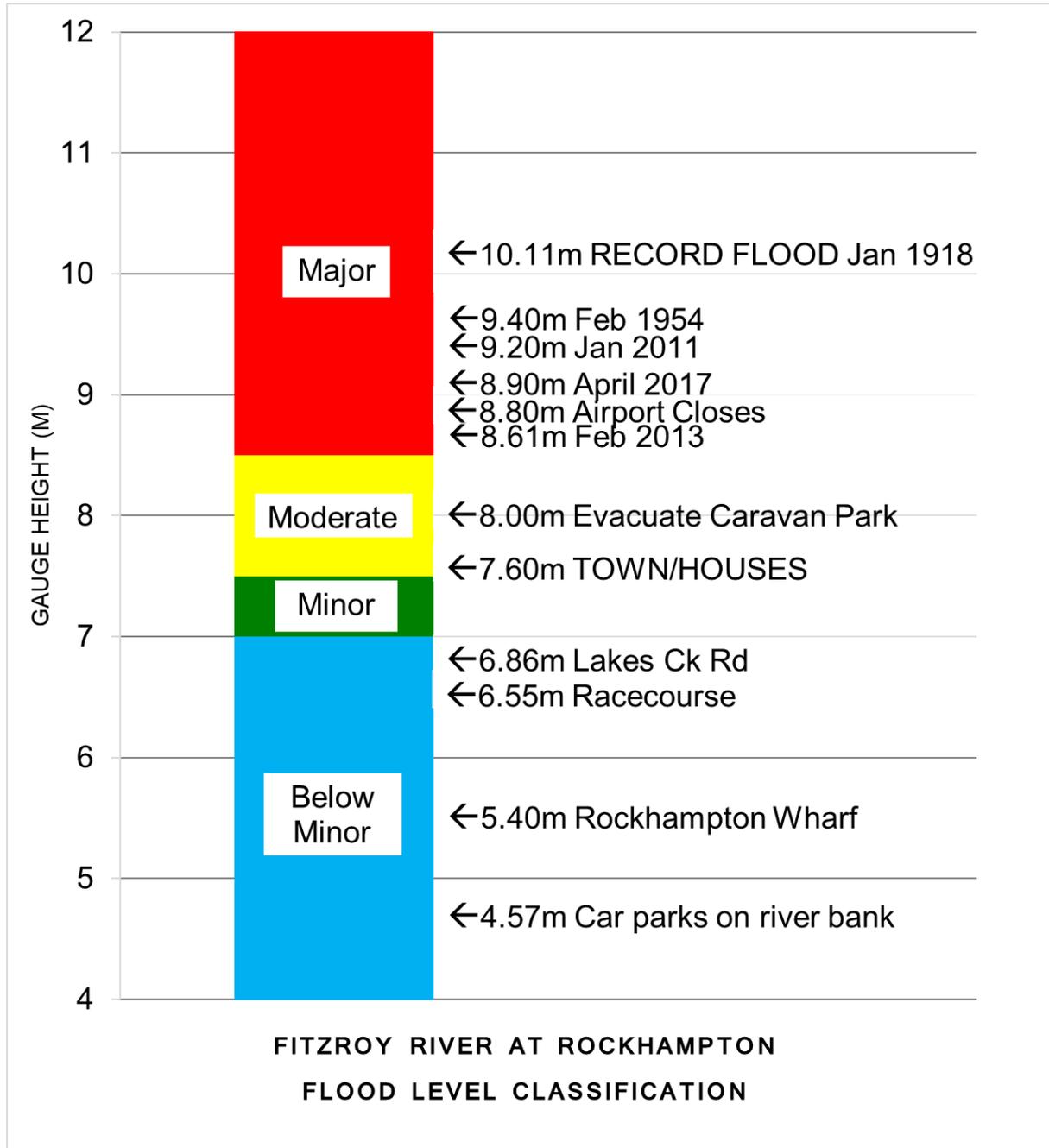
A feature of flooding at Rockhampton is its long duration, for example: the 1918 flood sustained levels above 7 metres for about 27 days and above 9 metres for 20 days; the 1954 flood sustained levels above 7 metres for 18 days; the 1991 flood remained above 7 metres for 20 days.

The table below summarises the flood history of the Fitzroy River catchment - it contains the flood gauge heights of some of the more significant flood peaks.

Flood Event	Emerald	Theodore	Yaamba	Rockhampton
Jan 1918	-	-	17.32	10.11
Feb 1954	14.12	13.64	16.59	9.40
Jan 1991	-	-	16.65	9.30
Jan/Feb 2008	15.36		14.25	7.75
Dec 2010/Jan 2011	16.05	14.70	16.55	9.20
Feb 2013	-	-	15.70	8.61
Apr 2017	-	-	16.10	8.90
Dec 2021	-	12.24	-	-

All heights are in metres on flood gauges.





Further Information

- [Latest rainfall and river heights](#)
- For information on the flood warning service for the Fitzroy River: [Queensland Service Level Specification](#)
- Catchment map: [Queensland Fitzroy Basin map](#)
- [National Arrangements for Flood Forecasting and Warning](#)