

Pioneer River

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

Flood Risk

The Pioneer River has a catchment area of about 1500 square kilometres and lies between the headwaters of the Fitzroy and Burdekin Rivers. The river flows in an easterly direction from the Clarke Range and Connors Range to the sea. Very high rainfalls can occur along the ranges and cause rapid stream rises in Black and Cattle Creeks which feed into the Pioneer River. The Pioneer catchment responds very quickly to heavy rainfall and flash flooding occurs frequently along Cattle Creek at Finch Hatton. Under extreme flow situations, flood water can break out between Mirani and Marian and flow into the Sandy Creek. Peak travel times generally range 3-6 hours from Mirani to Mackay.

The City of Mackay is at significant risk of flooding, with several thousands of properties at risk during a major event. Although the town of Mackay has an extensive levee system which offers some protection for small to medium floods, large floods will still cause extensive town flooding.

The lower reaches of the Pioneer River are prone to storm surge effects during cyclones, and flooding at Mackay and near the river mouth is significantly dependent on the tide height at the time.

Previous Flooding

The Pioneer River has a well-recorded flood history with documented evidence of flooding as far back as 1884. Since that time, several significant floods have occurred, including 1918, 1958, and 2017.

The highest flood peak recorded along the Pioneer River at Mackay (Forgan Bridge) is 9.14 m in February 1958.

The February 2008 flooding at Mackay was caused by intense local rainfall, with the river peaking at only 7 m, but significant flash flooding occurring along Gooseponds Creek. Around 600 mm of rainfall was recorded in approximately six hours in the Gooseponds Creek catchment, resulting in damage to over 4000 residences.

In March and April 2017, rainfall associated with ex-Tropical Cyclone Debbie resulted in major flash flooding along Plane Creek. Finch Hatton, Whitefords, Sarich's, Mirani Weir, and Dumbleton Rocks all experienced major flooding. Mackay peaked at 7.4 m (just over the minor flood level of 7 m at the time; the minor flood level has since been updated to 6.3 m), while Gargett and Hospital Bridge peaked at moderate flood levels.

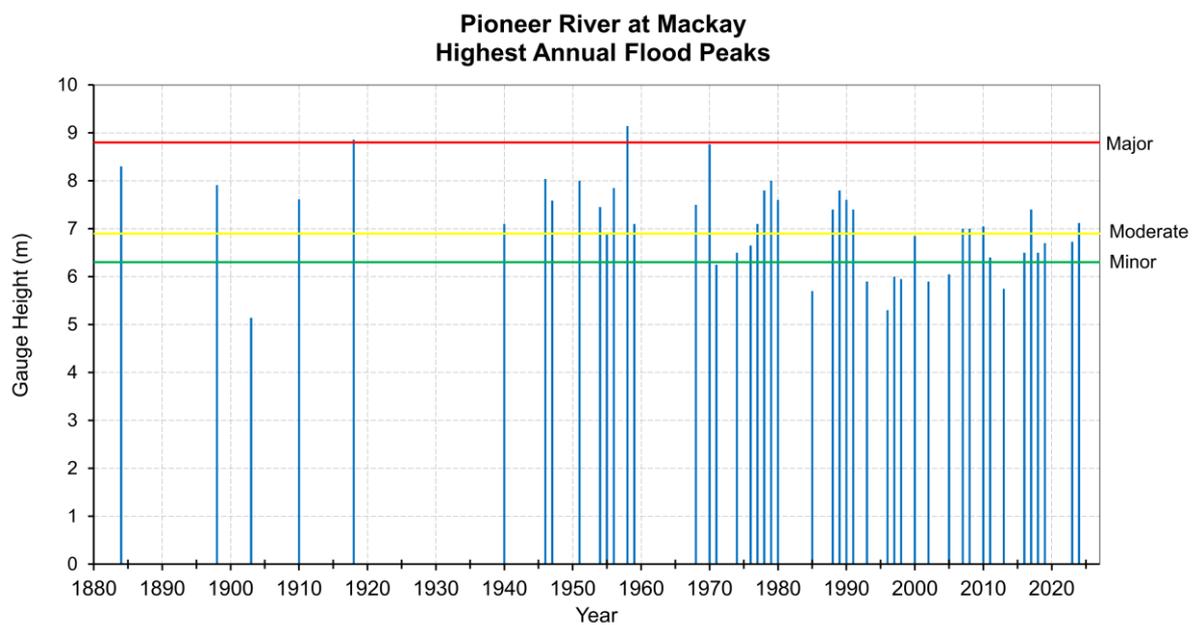
Since 2017, mainly minor to moderate flood level events have occurred in the Pioneer River catchment. The most significant of which occurred in 2024, when a peak river level height of 7.12 metres was observed at Mackay and above the moderate (6.90 m) level threshold.

The table below summarises the flood history of the Pioneer River catchment - it contains the flood gauge heights of the more significant recent floods.

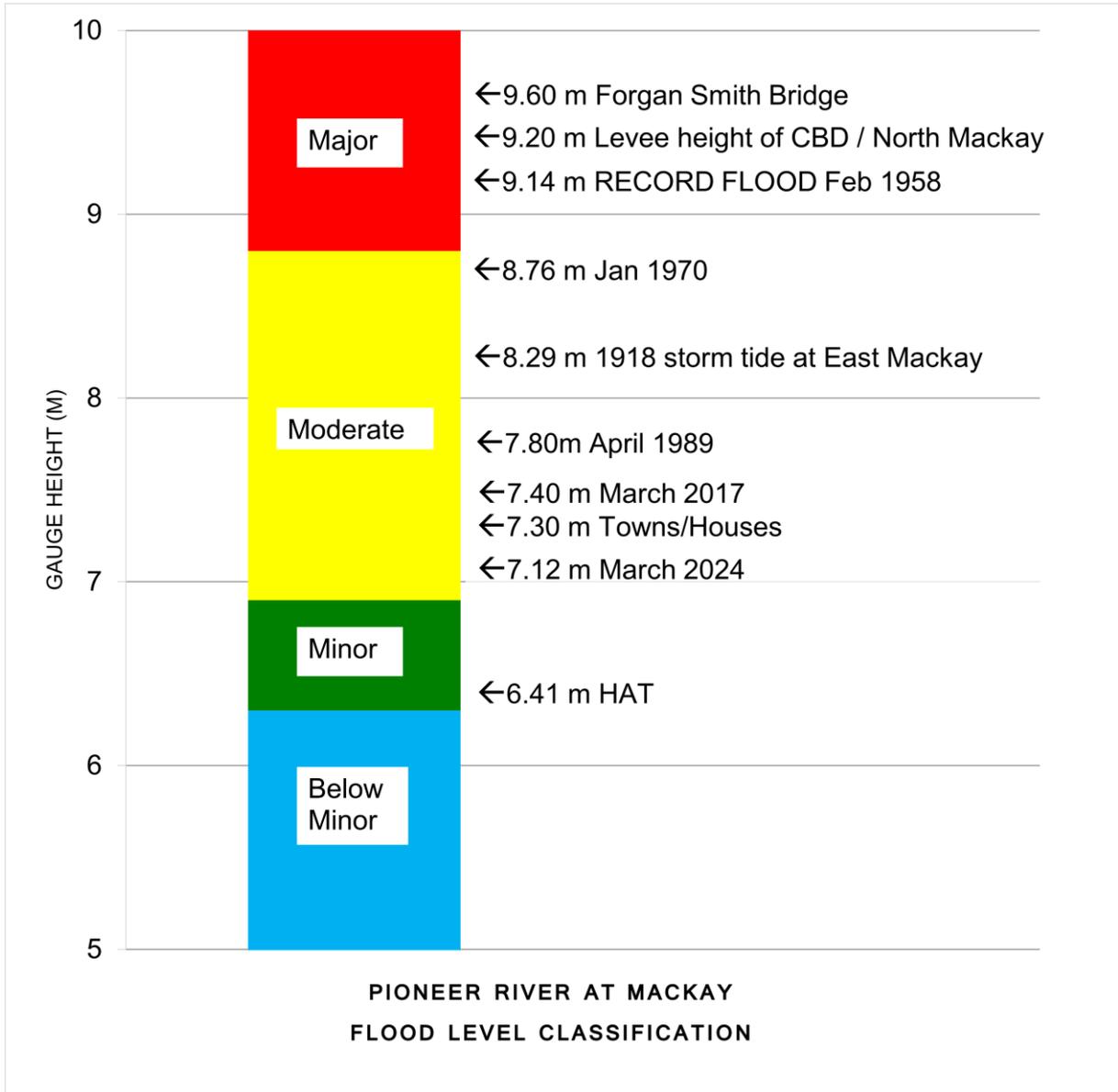
Flood Event	Finch Hatton	Mirani	Marian Weir	Dumbleton Rocks	Hospital Bridge	Mackay
Jan 1918	-	14.33	-	-	11.84	8.86
Feb 1958	-	16.46	-	-	11.64	9.14
Jan 1970	3.96*	14.02	-	-	11.84	-
Jan/Feb 1978	3.60*	10.60	11.66	-	-	7.80

Flood Event	Finch Hatton	Mirani	Marian Weir	Dumbleton Rocks	Hospital Bridge	Mackay
Feb 1979	4.00*	10.85	12.07	-	-	8.00
Jan 1980	3.50	11.00	12.74	-	-	7.60
Apr 1989	6.00	13.20	15.52	19.45	-	7.80
Dec 1990	5.85	10.40	12.32	17.77	11.84	7.60
Jan/Feb 1991	3.85	11.10	12.31	17.29	-	7.40
Feb-Apr 2000	5.80	9.50	10.19	19.30	8.95	6.85
Jan/Feb 2008	3.64	-	11.29	19.58	9.95	7.00
Dec 2010	5.30	-	11.06	19.41	-	7.05
Jan-Mar 2011	4.85	-	12.11	19.75	9.12	6.40
Mar 2012	5.25	-	10.21	-	-	-
Mar 2017	5.26	-	12.49	21.20	10.60	7.40
Jan/Feb 2023	6.22	-	10.60	-	-	6.73
Mar 2024	-	-	-	-	-	7.12

All heights are in metres on flood gauges. *Observations may have taken from an older gauge.



Australian Government Bureau of Meteorology



Further Information

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