




DEVELOPMENT PLANNING FLOOD REPORT

Date of report: 29/01/2025

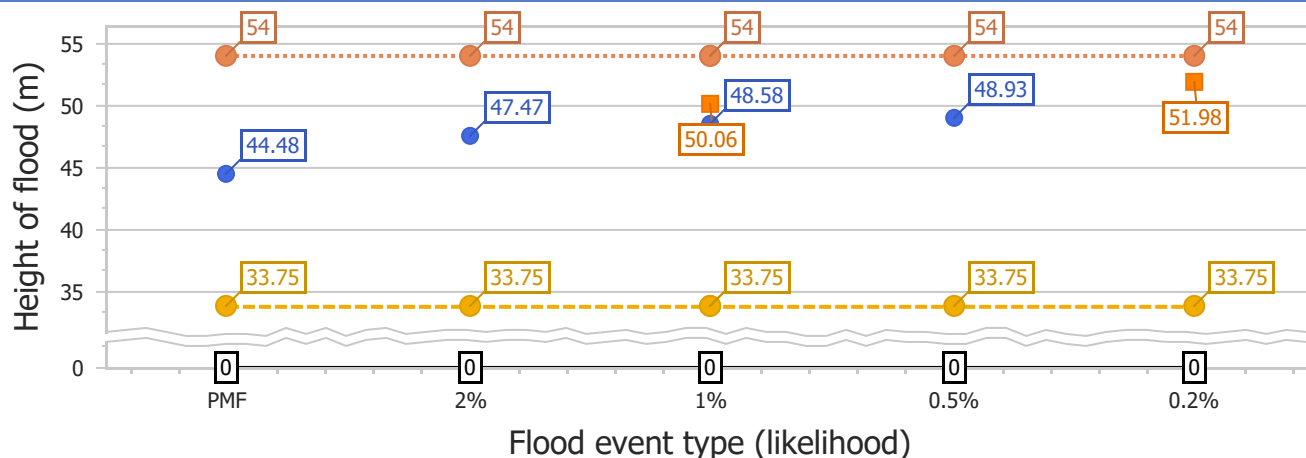
This report provides property or lot-based flood information for building and development requirements and understanding flood hazard. The report provides available information on minimum floor level requirements, estimated flood levels, and technical information on the source of flooding at the time the report is generated and is subject to change. To find out more about how the contents of this report may affect building and development please visit/contact Strategic Planning on 07 49619129 or strategic.planning@mackay.qld.gov.au.

This information is provided from Mackay Regional Council

1. SUBJECT PROPERTY DETAILS		2. PROPERTY LOCATION MAP
Property address:	L 900 Mirani-Eton Road MIRANI QLD 4754	 <p>Subject property</p>
Plan and Lot No.:	SP255615/900	
Mackay Region Planning Scheme 2017 Zone:	Split Zone (MRPS)	
Lot size:	Not Available	
Steep land overlay:	Not Applicable	
	<div>If property larger than 1200m2, see note 1</div> <div>If property within steep land overlay, see note 1</div>	

3. FLOOD LEVEL SUMMARY

This section provides a summary of available flood hazard information for the subject property. For a more detailed description of information presented, please refer to section 4.



LEGEND

- Future Hazard - Flood hazard which considers the projected impact of climate change to the year 2100 (applicable to the Mackay Region Planning Scheme (MRPS) 2017).
- Existing hazard - Flood hazard considering existing climate conditions to assist current and potential residents and insurance providers understand current exposure to flood hazards.
- Current floor level - floor level derived from Terrestrial Survey data - see section 7.
- Maximum Ground Level - shows this parcel's approximate highest ground levels.
- Minimum Ground Level - shows this parcel's approximate lowest ground levels.

1. Minimum habitable floor levels cannot be provided for large or steep lots due to the range of potential flood levels over the site. Please contact Strategic Planning on 07 4961 9129 for further information.

2. All ground levels presented derived from aerial LiDAR survey collected in 2021 (Mackay urban area) and 2015 (balance area). LiDAR survey not available for the entire region. Due to accuracy limitations of LiDAR data and potential changes to ground levels since data collection, all levels quoted are indicative only and must be confirmed by a registered surveyor.

4. ESTIMATED PEAK DESIGN FLOOD LEVELS

This section contains more detailed flood source information for residents who are interested in understanding how their property is affected by different sources of flooding, and for development and building professionals to use when planning and designing developments.

The table below provides peak design flood levels for different flood mechanisms. Estimated flood level data should be used in conjunction with applicable planning scheme requirements - Refer to the Mackay Regional Planning Scheme 2017.

FLOOD SOURCE	Annual Exceedance Probability (AEP) - %	Average Recurrence Interval (ARI) - years	Existing hazard - m AHD	Future hazard - m AHD
Storm Surge	2%	50	Not Applicable	Not Applicable
	1%	100	Not Applicable	Not Applicable
	0.2%	500	Not Applicable	Not Applicable
	PMF	> 10, 000	Not Applicable	Not Applicable
Pioneer River Flood Study (WRM, 2021)	2%	50	47.47	Not Applicable
Pioneer River Flood Study (WRM, 2021)	1%	100	48.58	50.06
Pioneer River Flood Study (WRM, 2021)	0.2%	500	Not Applicable	51.98
Pioneer River Flood Study (WRM, 2021)	PMF	> 10, 000	Not Applicable	Not Applicable
Riverine	2%	50	Not Applicable	Not Applicable
Overland Flow	1%	100	Not Applicable	Not Applicable
	0.2%	500	Not Applicable	Not Applicable
	PMF	> 10, 000	Not Applicable	Not Applicable

If not available* - Council does not hold flood levels for this probability event, or it is not applicable to your property.

Note: Council does not have catchment studies for every catchment in Mackay. The information in the table above is the best available at the time this report is generated and may not include every flood source for the subject property. Council are undertaking a continual program of additional studies to update existing hazard information and provide information where no studies currently exist.

Key terms presented

- AEP** Annual Exceedance Probability - annual exceedance probability means the likelihood of occurrence of a flood level of a given size or larger in any one year (ie. the 1% AEP existing hazard flood level has a 1% chance of being equalled or exceeded in any one year).
- ARI** Average Recurrence Interval - A statistical estimate of the average period in years between the occurrences of a flood level of a given size or larger (ie. the 100 year ARI flood level will occur on average once every 100 years). The 1% AEP is equivalent to the 100 year ARI event. The term ARI is being phased out as the ARI of an event gives no indication of when a flood of that size will occur next.
- AHD** Australian Height Datum - the level of 0.0m AHD is approximately mean sea level
- HAT** Highest Astronomical Tide - the highest tide level which can be predicted to occur under average meteorological conditions and any combination of astronomical conditions is approximately 3.64m AHD which is equivalent to a tide level of approximately 6.55m port datum.
- PMF** Probable Maximum Flood - The limiting value of flood that could be reasonably expected to occur from the flood sources of flooding represented.
- Storm surge** Storm surge occurs through a combination of low barometric pressure, strong winds and large waves that push the ocean into the coast.
- Riverine** Riverine flooding is caused when the runoff from major storms exceeds the channel capacity of a river or creek and overflows onto the surrounding floodplain.
- Overland flow** Overland flooding occurs when runoff from storms exceeds the capacity of the underground and overland drainage systems and water begins to flow over the surface of the land towards the nearest creek or river. Overland flows usually occur with little or no warning.

5. MINIMUM HABITABLE FLOOR LEVEL - INFORMATION FOR BUILDING AND DEVELOPMENT

This section contains information on the minimum habitable floor level for residential buildings and developments. More information on applicable flooding types and levels can be found in the Mackay Region Planning Scheme (MPRS) 2017.

Defined flood event (DFE)

The Defined Flood Event (DFE) is the 1% AEP flood event plus climate change factor. The DFE is derived from adopted studies regarding riverine and local flood events. Where a site is covered by more than one study, the highest flood level is the DFE.

The DFE level is **50.058 m** at the subject property. If 'Not Applicable' - the property is not impacted by the design flood event of that Annual Exceedance Probability. If 'Not Available' - the property is outside of the extents of Council's currently adopted flood studies.

Defined Storm Tide Event (DSTE)

The Defined Storm Tide Event (DSTE) is the 1% AEP flood event plus climate change factor. The DSTE is derived from adopted studies regarding storm surge. Where a site is covered by more than one study, the highest flood level is the DSTE.

The DSTE level is **Not Applicable** at the subject property. If 'Not Applicable' the DSTE does not impact the subject property.

Minimum Habitable Floor Level (MHFL)

The minimum floor level for habitable rooms (new buildings and extensions to existing buildings) in dual occupancies, dwelling houses and dwelling units is the highest of the following:

- a) 300mm above the DFE; or
- b) 300mm above the DSTE relevant to the subject site; or
- c) the minimum floor level, as follows:
 - (i) Mackay urban area – RL 5.4m AHD; or
 - (ii) Midge Point – RL 5.0m AHD; or
 - (iii) Seaforth, Haliday Bay, Ball Bay, Louisa Creek, Half Tide Beach, Salonika Beach, Grasstree Beach, Sarina Beach, Freshwater Point and Armstrong Beach – RL 5.3m AHD; or
- d) in addition to (c) above, an additional 600mm is provided for higher wave effects and run up in the foreshore area (the foreshore area shall be taken as extending inland for a minimum of 100 metres from the higher of toe of the frontal dune or Highest Astronomical Tide); or
- e) 225mm above natural ground level; or
- f) 300mm above the greater of top of the kerb level or the crown of the adjacent bitumen road.

Note: The top of kerb, crown of road and ground levels must be supplied by a licensed surveyor and this information included with any Material Change of use Application to Council.

Where the allotment defined flood event (DFE) level is greater than the existing surface level you may need to lodge a 'Material Change of Use - Code Assessment' application. It is recommended that you send through a query to Council's Duty Planner (through Council's online services) attaching a site plan of the proposed building to check whether a Material Change of use – Code assessment application is required.

If you have any enquiries in regard to the preparation of 'Material Change of Use - Code Assessment' applications, please contact Council's Duty Planner or Phone 1300 622529.

6. ADOPTED FLOOD STUDIES IN THE MACKAY REGION

This section contains information about the flood events that have been adopted for residential purposes within each catchment and where to find more information.

Flood source	Study Reference	Adopted by Council
Storm Surge	Mackay Region Storm Tide Study (BMT, WBM, 2015)	
Riverine	Goosepond Creek (including Pioneer River) Flood Study (WRM, 2012)	
Riverine	Bakers Creek/Walkerston Flood Study WRM, 2013)	January 27, 2016
Overland Flow	BAKERS ONE CATCHMENT STORMWATER TRUNKDRAINAGE STUDY – Extract of Section 6 – Existing Scenario Hydraulic Assessment (WRM, 2015)	February 3, 2016
Overland Flow	Bakers Creek South Mackay Stormwater Trunk Infrastructure Study (AECOM, 2018)	March 13, 2019
Overland Flow	McCreadys Creek South Stormwater Trunk Infrastructure Study – Extract of section 5 – Existing Scenario Hydraulic Assessment (WRM, 2015)	February 3, 2016
Overland Flow	Sarina Drainage Study (AECOM, 2018)	November 14, 2018

Note: The reports referenced in the table above are available online at the link below;

http://www.mackay.qld.gov.au/business/strategic_planning/waterways_and_coastal_hazards_planning

7. EXISTING PROPERTY DETAILS

This section contains information derived from a broad scale terrestrial LiDAR survey undertaken across the region in 2017. Due to the broad scale nature of the data collection, Council can not verify the accuracy of the data and it should be used for indicative purposes only.

Attribute	Terrestrial LiDAR value
BUILDING PURPOSE	Vacant
CONSTRUCTION MATERIAL	Not Available
FLOOR TYPE	Not Available
EAVE HEIGHT	Not Available
CURRENT HABITABLE FLOOR LEVEL	.00 m
EDGE OF BUILDING	Not Available

3. All values should be independently verified. Where one building occupies multiple lots (e.g. strata titled units) or multiple buildings occupy one lot.

8. OTHER TOOLS AVAILABLE

Flood Awareness Terminology and FAQs	Website TBC
Pioneer River Flood Gauge Mapping	Website TBC
Emergency Response websites	Website TBC

DISCLAIMER

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