

Evacuation during a disaster

Frequently Asked Questions

Evacuation During a Disaster

What if my property is in an Evacuation Zone (Storm Tide)?

If your property is one of thousands located in an Evacuation Zone (Storm Tide) in our region, you should:

1. Prepare an Evacuation Plan; identify your main evacuation route and alternative evacuation routes
2. Prepare an Evacuation Kit and Emergency Kit
3. Consider and identify your evacuation and shelter options, these may include:
 - a. Going to friends / family / accommodation premises in a higher and safer place
 - b. Leaving / evacuating the cyclone warning area entirely
 - c. Public Cyclone Shelters (last resort and only if open) in Bowen and Proserpine
 - d. Shelter inside house (highest and safest part), if too late or unable to evacuate
4. Tune into warnings; authorities will advise which colour zones need to evacuate

Can I be directed to evacuate?

A directed evacuation may be ordered by the Mackay District Disaster Coordinator (high ranking Police Officer). This decision is made in close consultation with the Whitsunday Disaster Management Group. If you are in a zone that is directed to evacuate, you must evacuate for your own safety. Directed evacuations are ordered for colour zones when there is a threat to life and / or property.

What is the likelihood of being evacuated for a cyclone storm tide?

A conservative approach is taken with evacuations to ensure the safety of residents, and the likelihood of being evacuated is higher than the likelihood of being inundated during a disaster. For example, evacuation would be directed if there is a likelihood of a worst-case scenario option, such as the cyclone impacting at high tide. Evacuations of the Red Zone may occur with any cyclone depending on tide, intensity and location. Evacuations of the Orange, Yellow, Blue and White Zones become less likely in turn.

What if I am in the White Zone, will I ever need to evacuate?

As the White Zone is generally higher than the worst-case storm tide scenario possible, it is highly unlikely that the White Zone will ever need to evacuate because of storm tide risk. However, the new Evacuation Maps are specifically for storm tide, and they do not include risks from either rainfall based flooding or destructive wind damage. If you live in a house that was built before 1982, or in poor conditions, or at risk from flooding, you may wish to voluntarily evacuate your property anyway.

Should I evacuate for a Category 5 cyclone?

Yes, Category 5 cyclones are extremely dangerous and will cause widespread destruction. Residential houses built since 1982 are designed and constructed to maintain structural integrity from wind speeds equivalent to a low-mid category 4 cyclone. If you are in the path of a category 5 cyclone, it is likely the Whitsunday Disaster Management Group will be recommending all residents to evacuate the area.

How can I get my Evacuation Zone (Storm Tide) colour changed?

The colour zones are set in place until the next review. Should you have any concerns about your colour zone, you can email us at disaster@whitsundayrc.qld.gov.au

Can the Evacuation Zone (Storm Tide) be used in the event of a Tsunami?

Yes. Although Tsunami are less frequent, low-lying coastal land is at risk of inundation during a Tsunami.

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Storm Surge and Storm Tide

What is a storm surge?

Storm surge is a large mound of water that accompanies a tropical cyclone as it comes ashore. The intense winds of the cyclone pile up the ocean into a dome of water that is pushed onshore as the cyclone strikes the coast. The low pressure of the cyclone adds to the height of the mound of water, though this is a secondary effect. When the height of a storm surge is discussed it does not consider the height of the large waves on top of the mound of water. Find out more here - [Storm Surge Preparedness and Safety](#)

What is the difference between a storm surge and storm tide?

The combination of storm surge and astronomical tide is known as 'storm tide'. The worst impacts occur when the storm surge arrives on top of a high tide. When this happens, the storm tide can reach areas that might otherwise have been safe. Find out more here - [Bureau of Meteorology](#)

What storm tide monitoring sites are in the Whitsunday Region?

The Queensland Government owns and maintains storm tide monitoring sites at Bowen and Shute Harbour. Data from these sites can be found here - [Bureau of Meteorology](#)

Who is at risk from storm tide inundation in the Whitsunday Region?

The Whitsunday Islands and low-lying coastal areas, where most of the population resides. Storm tide risk has been mapped across the Whitsunday Region from Highest Astronomical Tide (HAT) level, also referred to as King Tide Level, to approximately 6.25m HAT.

What is a Storm Tide Warning Location?

Storm tide Warning locations are specific geographical locations along the coastline that the Bureau of Meteorology will provide predicted and worst-case scenario storm tide height information in the lead up to and throughout a cyclone event. There are currently 9 storm tide warning location points within the Whitsunday Region including Molongle Creek, Abbot Point, Bowen, Brisk Bay, Dingo Beach, Airlie Beach, Conway Beach, Hayman Island and Hamilton Island.

How are decisions made to evacuate and who makes the decisions?

Storm Tide Warnings are issued by the Bureau of Meteorology to the Whitsunday Disaster Management Group (WDMG) in the lead up to and during a tropical cyclone event. These warnings contain technical data about predicted and worst-case scenario storm tide heights based on several factors. The WDMG then interprets this data to assign a 'colour' zone to evacuate at specific locations.

The Storm Tide Warning provides detailed information about the storm tide threat based on two formulas - the Forecast Track Scenario and the Worst-Case Scenario. The Forecast Track Scenario is the expected Storm Tide based on the current forecast. The Worst-Case Scenario is the potential Storm Tide based on a set of worse conditions such as slightly more intense cyclone, impacting close to the location and coinciding with the local high tide.

What effect is climate change going to have on cyclones and storm tide?

Climate change projections indicate a rise in sea levels over time and more intense cyclones. Both these outcomes will result in worse storm tide events. Cyclones are expected to become less frequent but more intense in the future.

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New Evacuation Zone Maps

Why do we need new Evacuation Zones (Storm Tide) Maps?

Prior to 2016, the Whitsunday Region didn't have 'Evacuation Maps' for Storm Tide and used Storm Tide Inundation Maps as the best alternative option until the development of the new maps.

The new zones have been developed by local emergency services working groups, taking into consideration information including Storm Tide Inundations Maps, the AHD (Australian Height Datum) information, risks of properties becoming isolated, building plans, survey plans and local knowledge.

What are the key improvements of the new maps?

- Maps are now much clearer and easier to understand
- The number of colour zones has been reduced from 7 to 5
- Each property or land parcel will only have 1 colour zone assigned
- It is easier to identify your property on the new maps
- Evacuation planning and execution will be more efficient and easily understood by both emergency services and residents and evacuation routes included
- Climate change risk is included (sea level rise, more intense cyclones)
- Maps include cyclone shelters and emergency services agency locations

Why is my property now in an Evacuation Zone when it wasn't before?

Evacuation Maps (Storm Tide) and Storm Surge Inundation Maps are not the same and serve different purposes. There are several reasons why your property may now be in a colour zone, these include:

- Your evacuation route may be at risk from storm tide, even though your property is high
- Evacuation maps include higher elevated land to include the low frequency events, more intense cyclones and sea level rise
- You live in a coastal town with limited local emergency services and resources where evacuation for severe cyclone events may be recommended or necessary

How were the new colours decided?

The new evacuation maps and colours are from the State Government's Storm Tide Evacuation Framework Resource for Queensland Coastal Communities. Most coastal Queensland Councils already have this framework in place, so there is consistency across the state.

Will the new maps affect my property insurance?

Storm tide or storm surge is not universally covered by all insurers. Many do not take it into account when setting a premium. In those circumstances the release of storm tide mapping for a region will have negligible impact on premiums. Where an insurer does cover part, or all, of the storm tide risk, premiums have already been set using available hazard estimates. Where accurate mapping has not been available the insurer will typically incorporate an uncertainty factor into the premium. This process is conservative, as the insurer must set aside capital for a worst-case scenario. The release of better storm tide mapping will tend to have a compression effect on premiums where previously the data relied upon was of a lower quality. This information has been provided by the [Insurance Council of Australia](#).