



CYCLONES

What is it?

Tropical cyclones are intense low-pressure systems that form over warm tropical waters.

Cyclones are dangerous for three main reasons:

- **Destructive winds** can cause extensive damage and can turn debris into dangerous missiles.
- **Heavy rainfall** can produce extensive flooding and landslides.
- **Storm tide** can increase sea levels above king tide level (highest astronomical tide) and cause damaging waves.

What are the local risks?

The Mackay region has a high risk of being impacted by cyclones during the “wet season” or “cyclone season”, which officially runs from November 1 to May (although some have formed in the Coral Sea as late as early July).

What should I do?

The following information has been prepared in consultation with emergency services to help protect you, your family and your property.

Before The Cyclone Season:

- Check to see if your home has been built to cyclone standards (generally houses constructed since 1982).
- Know your Evacuation Zone (Storm Tide).
- Check that the walls, roof and eaves of your home are secure.
- Trim treetops and branches well clear of your home.
- Preferably fit shutters, or at least metal screens, to all glass areas.
- Clear your property of loose material that could blow about and possibly cause injury or damage during extreme winds.
- In case of a storm surge/tide warning, or other flooding, know your nearest safe high ground and the safest access route to it.
- Prepare an emergency kit.
- Keep a list of emergency phone numbers on display.
- Check neighbours, especially if elderly or recent arrivals, to make sure they are prepared.
- Monitor cyclone potential throughout the season. (bom.gov.au).

When a cyclone watch is issued:

- Re-check your property for any loose material and tie down (or fill with water as last resort) all large, relatively light items, such as boats and rubbish bins.
- Re-fuel vehicles and jerry cans (service stations may be unable to distribute fuel after the event).
- Check your emergency kit, fill water containers and ensure you have some cash.
- Ensure household members know which is the strongest part of the house and what to do in the event of a cyclone warning or an evacuation.
- Tune to your local radio/TV/internet for further information and warnings.
- Check that neighbours are aware of the situation and are preparing.

When a cyclone warning is issued:

Depending on official advice provided by your local authorities as the event evolves; the following actions may be warranted.

- If requested by local authorities, collect children from school or childcare and go home.
- Park vehicles under solid shelter (hand brake on and in gear).
- Put wooden or plastic outdoor furniture in your pool or inside with other loose items.
- Close shutters or board up or heavily tape all windows (tape does not strengthen windows, but minimises the glass shatter if broken). Draw curtains and lock doors.
- Pack an evacuation kit of warm clothes, essential medications, baby formula, nappies, valuables, important papers, photos and mementos in waterproof bags to be taken with your emergency kit. Large/heavy valuables could be protected in a strong cupboard.
- Remain indoors (with your pets). Stay tuned to your local radio/TV/internet for further information.

On warning of local evacuation:

Based on predicted wind speeds and storm surge heights, evacuation may be necessary. Official advice will be given on local radio/TV/internet regarding safe routes and when evacuation should occur.

- If evacuating to a public cyclone shelter in Northern Beaches (place of last resort with very limited numbers) or a higher location, follow police and emergency services directions.
- If going to a public cyclone shelter, take your own food, water and essential only.

- Leave pets protected and with food and water (pets are NOT allowed into the cyclone shelter or evacuation centres).
- Wear enclosed shoes and durable clothing for protection.
- Lock doors, turn off power, gas, and water and take your evacuation and emergency kits.
- If evacuating inland (out of town), take pets and leave early to avoid heavy traffic, flooding and wind hazards.

As the cyclone approaches

- Disconnect all electrical appliances. Listen to your battery radio for updates.
- Stay inside and shelter in the strongest part of the building (such as internal hallway or bathroom) and keep well clear of windows. Keep evacuation and emergency kits with you.
- If the building starts to break up, protect yourself with mattresses, rugs or blankets, under a strong table or bench, or hold onto a solid fixture (such as a water pipe).
- Beware the calm "eye". If the wind drops, don't assume the cyclone is over; violent winds will soon resume from another direction. Wait for the official "all clear".

After the cyclone

- Don't go outside until officially advised it is safe.
- Check for fallen power lines. Don't use electric appliances if wet.
- Listen to local radio for official warnings and advice.
- If you have to evacuate, or did so earlier, don't return until advised. Use a recommended route and don't rush.
- Be aware of damaged power lines, bridges, buildings, trees, and do not enter floodwaters.
- Heed all warnings and don't go sightseeing. Instead, check and offer help to neighbours and other friends and family.
- Don't make unnecessary telephone calls.

USEFUL LINKS:

Mackay Regional Council Emergency Dashboard
(including Evacuation Maps)

mackay.qld.gov.au/emergency

Bureau of Meteorology

bom.gov.au/cyclone

CYCLONE ADVICES

Cyclone advices can be issued as a “watch” or “warning”. These advices provide information on where the cyclone is, its movement, how strong it is and identify the areas that could be affected.

A cyclone watch is issued every six hours when there are indications that strong winds are expected to affect coastal or island communities within 48 hours.

A cyclone warning is generally issued every three hours (however, in some cases it’s every hour) as soon as gales or stronger winds are expected to affect coastal or island communities within 24 hours. Forecasts of

heavy rainfall, flooding and abnormally high tides are included where necessary.

The severity of a tropical cyclone is described in terms of categories, ranging from 1 (weakest) to 5 (strongest), related to the maximum mean wind speed.

See below table:

Tropical cyclones are referred to as “severe tropical cyclones” when they are producing “very destructive winds”, which corresponds to category 3, 4 and 5. This is also the trigger point for opening of public cyclone shelters.

CATEGORY	CENTRAL PRESSURE IN HECTOPASCALS	STRONGEST WIND GUST	TYPICAL EFFECT (INDICATIVE ONLY)
1	>985 hPa	100-125 km/hour	Minor house damage Damage to some crops, trees and caravans Small craft may drag moorings
2	985-970 hPa	125-170 km/hour	Minor house damage Significant damage to signs, trees and caravans Heavy damage to crops Risk of power failure Small craft may break moorings
3	970-945 hPa	170-225 km/hour	Some roof and structural damage Some caravan destruction Power failure likely
4	945-920 hPa	225-280 km/hour	Significant roof loss and structural damage to buildings Caravans destroyed Dangerous airborne debris Widespread power failure
5	<920 hPa	Greater than 280 km/hour	Extremely dangerous with widespread destruction

PREVIOUS CYCLONES IN OUR REGION

- Cyclone Debbie, Category 4: Crossed near Airlie Beach in March, 2017. Mackay received damage to housing from winds, torrential flooding and causing significant coastal erosion.
- Cyclone Marcia, Category 4 in February, 2015, came within 110km of Mackay before moving away to the south and crossing the coast north of Yeppoon as a Category 5 cyclone.
- Cyclone Dylan, Category 1: Crossed near Hydeaway Bay in January, 2014. Mackay received a storm tide slightly higher (0.33 metres) than king tide level, damaging some homes and causing significant coastal erosion.
- Cyclone Yasi, Category 5: Crossed near Innisfail in February, 2011, causing a five-metre storm surge on a falling tide, and 2.3 metre inundation above

CYCLONE TRACKING MAP

