

Extreme Weather Event Contingency Plan Mackay Region – 2019/2020

Introduction

Maritime Safety Queensland (MSQ) is an agency of the Dept. of Transport and Main Roads (DTMR) and works closely & cooperatively with the disaster management agencies, the industry and community on both a State wide and local basis. The recent extreme weather events throughout Queensland have highlighted the need for awareness and vigilance to the risks such events present to the maritime community. MSQ's core focus is on the preservation of life and property on the State's waters and in the prevention/response to ship based pollution.

MSQ has built on these recent experiences and is reissuing its contingency plans as one way of ensuring stronger resilience within the maritime community. Timely awareness and adequate preparation will reduce the impact of such events.

This extreme weather event contingency plan for the Mackay Region sets out the broad framework that will apply. MSQ takes advice on developing weather situations from the Bureau of Meteorology (BOM) which is the government's primary source of weather intelligence.

The Mackay region is particularly exposed to risks posed by tropical cyclones. The Whitsundays present a challenging environment in extreme weather due to two main factors:

- the varied nature of the marine activities
- the reliance on passenger vessels as the primary means of transport to and from the island resorts and Hamilton Island Airport

The cyclone season is generally at its peak from November to April. It is imperative that all mariners prepare for the possibility of a cyclone crossing the coast in the region during this period. The Mackay Region is also exposed to severe local storms which can form with minimal warning and cause major damage to the local maritime industry (for example, the devastating storm at Airlie Beach in February 2008).

In addition, the major commercial shipping ports of Mackay and Hay Point are particularly exposed to the prevailing weather and sea conditions with limited protection from a tropical cyclone and other extreme weather events. The prime intent of this plan is for mariners and associated maritime community to be aware of an approaching weather event and be prepared to take the necessary action to avoid the damaging impact to ships and the environment.

It is clearly the responsibility of owners and Masters of vessels to take the necessary action within the context of the official weather warnings to protect their passengers, crew and craft and abide by any closures declared by the Regional Harbour Master.

It may be necessary for the Regional Harbour Master to give directions in relation to the operation and movement of vessels when entering, leaving or operating in a pilotage area. This may include, but is not limited to the orderly removal of vessels from their normal moorings, to more sheltered locations or in the case of large commercial vessels, the orderly evacuation of these vessels to sea. The closure of the pilotage area effectively means that marine activities cease, including the operation of ferries to/from all island resorts. Only vessels specifically nominated as being used to transport passengers & staff from island

resorts and Hamilton Island Airport are permitted to operate when approval is given by the RHM.

If weather conditions permit and on the specific application from both the ferry operator and the island management providing their endorsement that operations can be managed safely, the Regional Harbour Master may issue vessel specific exemptions to allow for the transfer of passengers and staff, even if a closure direction has been issued. Exemptions will only be issued following notification by the island management to the Local District Management Group (LDMG) of the plan to continue passenger transfers during the period of an extreme weather event or “cyclone” warning.

In addition, MSQ will take account of the time available to the ferry operator to secure the vessel and the crew and to take shelter prior to the arrival of the damaging winds of the cyclone. It should be emphasised that early steps need to be taken to activate island contingency plans (including the evacuation of staff and guests) given the unpredictable nature of cyclone movements and the potential need to implement imminent closure of the pilotage area as evidenced in TC DEBBIE.

Even if you are an experienced mariner, we encourage you to read this plan for your region and familiarise yourself with its requirements. As you will see, the contingency plan requires you to think about your own planning in this context and to be prepared to enact this plan if required. Remember, the best protection against extreme weather events is to plan for such eventualities and respond accordingly.

Angus Mitchell
General Manager
Maritime Safety Queensland

Captain Jason Britton
Regional Harbour Master
Mackay

Objective of this plan

The overall objective of this plan is to provide for the safety of vessels and their operation during extreme weather events. Personal safety is of prime importance at all times.

An extreme weather event may require the evacuation of a pilotage area, part of a port, a harbour or boat harbour. In such instances, the Regional Harbour Master's primary objective is to have the relevant area secure and for all vessels to have enacted their own safety plans between 48 and six hours but no later than six hours before the event is expected to impact.

This plan utilises emergency management concepts such as a comprehensive approach and principles such as an all agencies approach in its creation to best manage emergent events

Master's and owner's responsibility in regard to this plan

Masters and owners of vessels have an obligation under the *Transport Operations (Marine Safety) Act 1994* at all times to take appropriate precautions for the safety of their vessels, passengers and crew.

In extreme weather conditions, the Regional Harbour Master may give directions in relation to the operation and movement of vessels within their jurisdiction. Masters and owners are required to follow such directions. MSQ is sensitive to the needs of the island resorts, however it is not possible to have a policy applying to a specific island resort.

Masters and owners need to familiarise themselves with this plan, determine and develop the most appropriate safety plan for their vessel and respond in accordance with any directions. Masters and owners are also required to monitor developments to ensure that they have the most up-to-date information on weather conditions and any directions in place.

Masters and owners are required to notify MSQ of any changes to the following

- vessel ownership
- residential address
- contact telephone numbers.

This up-to-date contact information is vital for an immediate response to any port emergency. Failure to provide correct details of vessel ownership is an offence under the *Transport Operations (Marine Safety) Act 1994*.

Unless absolutely unavoidable, all owners of vessels on the water should ensure their vessel is capable of moving without assistance or have alternative means of moving their vessel, particularly during extreme weather event peak seasons (for example cyclone seasons). Failure to do so may present an unacceptable hazard to the vessel, as well as other vessels and infrastructure. This may cause an owner to incur towage expenses.

If owners are unable to attend to their vessels at short notice for any significant duration, particularly during the tropical cyclone season, owners are to make arrangements with a person that can act on your behalf in the event of an extreme weather event. That person will be responsible to implement your safety plan. However, the owners are still clearly responsible for the safety of your vessel.

In the event of extreme weather, masters and owners of vessels should avoid entering waterways if there is no valid purpose to be there.

Extreme weather procedures in detail

In the event of an extreme weather event threat the Regional Harbour Master will take the following action:

- restrict the movement of vessels within a pilotage area if necessary;
- direct and oversee the evacuation of vessels from a pilotage area, or other affected areas within their jurisdiction if applicable;
- provide directions which restrict and/or allow the entering or leaving of a pilotage area, in effect closing and reopening the port.

The Regional Harbour Master will also:

- advise mariners of relevant warnings and response requirements;
- seek compliance with the response requirements.

These actions will be enacted over four distinct phases that allows for the development of appropriate responses to the threats faced.

Phase 1: Extreme weather event watch - Prevention

An extreme weather event watch will be issued when an extreme weather event or developing event is likely to affect the area **within 48 hours**, but not expected to impact the area within 24 hours. This phase is a critical time for masters and owners to plan and prepare for the impact of the event.

During this period, masters and owners (or their representatives) should review their safety plans and address any matters outstanding (for example fuel, food, water and contact details).

Phase 2: Extreme weather event warning – Preparedness

An extreme weather event warning will be issued when an extreme weather event or developing event is likely to affect the area **within 24 hours**. This phase is critical for masters and owners to complete all preparations in an orderly manner prior to the event occurring.

When deemed necessary, the Regional Harbour Master will direct the operation of vessels in ports, marinas and anchorages with the assistance and cooperation of personnel from VTS, shipping agents, port & marina authorities, terminal operators, the Water Police, VMR and Queensland Boating and Fisheries Patrol to regulate and control the safe movements of vessels.

These directions may include restricting ships from entering or leaving a pilotage area, effectively closing the ports, directing large commercial vessels to leave port and anchorages and proceed to deep sea. Smaller vessels will be directed to their purpose built cyclone moorings or to seek alternative shelter to avoid the impact of the weather.

Once the movement of ships in relation to a pilotage area has been restricted, and the port has been effectively closed by the Regional Harbour Master, the entering and leaving of ships in and out of the port is not permitted.

Specific directions for the Port of Mackay (and pilotage area), Port of Hay Point (and anchorages) Airlie Beach ([Abel Point Marina](#)) and Mackay Marina are located on the MSQ website.

Phase 3: Actual extreme weather event - Response

By this phase, all vessels are expected to have enacted their vessel safety plans noting that the port may be closed and/or vessel movements restricted commensurate with the threat to safety of vessel movements or the environment. It is now too late to consider the safety of your vessel. Your actions should be directed towards your own personal safety.

It is also important to be alert during the 'eye' of the cyclone as a period of calm may be experienced before the damaging wind force resumes once the eye has passed.

Phase 4: After the extreme weather event has passed - Recovery

The Regional Harbour Master will assess residual risks and determine the actions needed to be addressed. Do not assume that as the extreme weather event has passed, it is now safe to move your vessel.

Vessels are not to leave their cyclone moorings or return to the ports or anchorages until the official 'all clear' is given by the Regional Harbour Master and the ports are opened. Mariners should maintain a listening watch on the key VHF frequencies (see the communication section).

Owners and masters of vessels should be aware that aids to navigation may be affected by the extreme weather event. Owners and masters should reference Notices to Mariners or Hay Point VTS for the latest updates. Furthermore, port infrastructure will need to be inspected to ensure that facilities are fit for purpose.

Hay Point berth warning system

Due to the exposed nature of the Hay Point and Dalrymple Bay berths, a berth warning system which predicts damaging swell and sea conditions has been installed. The berth warning system assists the Regional Harbour Master in deciding whether or not to direct removal of vessels from the berths in severe weather conditions.

Port Closure

The Regional Harbour Master may effectively close the port to shipping movements, wholly or in part, by giving general or particular direction to restrict the:

- entering or leaving of vessels in or out of a pilotage area; and/or
- movement of vessels within a pilotage area.

Such direction will be appropriate with the threat to the safety of shipping or the environment and may occur at any time prior to the event.

The closure of the port or restriction on vessel movements will, as far as practical, be implemented in consultation with key authorities and in a timely manner in order to minimise risks.

Reopening of the port

A pilotage area may be effectively re-opened by the Regional Harbour Master following direction to allow the entering or leaving of ships in and out of a pilotage area, or movement of vessels within a pilotage area. Such direction will be provided:

- when satisfied that all danger has passed, and the pilotage area is safe for vessels to re-enter or leave; and
- following inspections and surveys to critical maritime infrastructure (for example navigational aids and wharves) as well as clearance of navigational hazards.

The Vessel Traffic Services Centre will coordinate the safe movement of vessels following the opening of the pilotage area in accordance with normal practice. Berths will be re-opened and operations resumed when wind and sea conditions are within operational limits.

Communication

The successful implementation of this plan relies on high quality communication of information and directions.

The Vessel Traffic Services Centre will implement the extreme weather event contingency plan on behalf of the Regional Harbour Master by acting as the central communications point for the duration and aftermath of the extreme weather event.

The Vessel Traffic Services Centre call sign will be **'Hay Point VTS'**.

VHF channels **16, 67** and **10** will be continuously monitored before and during (if not evacuated) the extreme weather event. Extreme weather watches, warnings and any directions will be issued on these channels frequently as directed by the Regional Harbour Master. If the plan requires for the Regional Harbour Master to give directions in relation to the operation and movement of vessels within their jurisdiction (such as port evacuation, closure and/or the movement of vessels to safer moorings), these actions will be coordinated by the Vessel Traffic Services Centre located at Hay Point. In such instances, all vessels must contact the Vessel Traffic Services Centre before moving to their area of shelter, either by telephoning VTS or calling Hay Point VTS on VHF channel 16 or 10.

Key Contacts

Name	Contact Details
Regional Harbour Master	+61 7 4994 3700 mackaymarine@msq.qld.gov.au
Mackay Region – "Hay Point VTS"	1300 645 022 +61 408 878 939 vtshaypoint@msq.qld.gov.au
VHF radio	channels 10 and 16

Key Websites

Detailed weather updates: www.bom.gov.au

MSQ Website: www.msq.qld.gov.au

Appendix A

Your safety plan

The master and owner's responsibility is at all times to take appropriate precautions for the safety of their vessels, passengers and crew.

All masters and owners should have developed a vessel safety plan in response to extreme weather events. The plan should take into account the most likely risks arising from the hazards presented for your region.

You should trial your plan to ensure that it can be enacted competently and rapidly. Do not wait until the last minute to plan and prepare your response to extreme weather risks.

General considerations

A well prepared vessel with fully functional equipment is a key element to a successful safety plan.

Ensure that your vessel is in a seaworthy state

Maintain your vessel to ensure that deferred maintenance does not compromise the seaworthiness of your vessel at critical times. Check that all bilge pumps are operational and that all self-draining openings are clear and will remain so. Make sure all safety equipment is available, in working order and up-to-date where applicable (for example flares). Check all cleats and associated fittings for integrity. Generally, mooring lines are stronger than these. Keep storm anchors, spare warps and spare fenders ready at hand but well secured to prevent them creating a potential hazard in the event you must move the vessel. Securely stow all loose items. Secure all hatches and vents. Provision your vessel with fresh water, food and fuel and ensure that the batteries are charged.

Ensure your mooring arrangements are up for the job at hand

Check all mooring lines and warps for chafing and deterioration and replace if necessary. Man-made synthetic fibres such as polyethylene, polypropylene and polyester deteriorate in the sunlight and may show little signs of deterioration prior to failure. You should have a schedule worked out to replace mooring lines in accordance with manufacturer's recommendations. Allow for a sufficient number of mooring lines so that you can double up your mooring arrangements. Have sufficient fenders for the anticipated mooring arrangements. Check anchor chains, shackles and anchor warps for wear and replace if necessary. If you intend to utilise a swing mooring, ensure that the mooring chain has been recently inspected. Be aware that flooding events resulting from extreme weather events may result in build-up of debris around the mooring chain, compromising the integrity of the mooring arrangement.

Reduce wind loadings

Remove all deck gear including lifebuoys, dodgers, Bimini covers, clears and so on and store below. Remove sails, self-furling sails and covers. If this is not possible, double wrap or tie these components in such a way that the wind cannot tease any ends out and allow flapping of gear to commence.

Secure your tender

Ideally, tenders should be stored in dinghy lockers, garaged or deflated and stowed if applicable. If stored with the vessel, tenders should be securely lashed inverted on deck to prevent filling with water – do not contemplate towing tenders. If left on purpose-built davits, tenders should be cleaned out and securely lashed and bungs removed.

Marina-based safety plans

Marina-based plans may be appropriate for your region. You should note that the design and construction of marinas requires the consideration of the likely range of weather conditions that might be experienced so that the overall structures would withstand the expected loads including storm surge while vessels are moored in the berths.

Notwithstanding the care which was taken in establishing design and construction criteria that were considered to be appropriate, no guarantee can be given that the structures are capable of maintaining their integrity in the complete range of extreme weather conditions. Remember vessels are moored at owners' risk and it is the owner's prerogative to move their vessel if they feel insecure in the marina, noting that any vessel movement should occur in line with the extreme weather contingency plan for the port.

In addition to the general points made above, marina-based safety plans need to consider the following issues. It is important that you discuss this with your marina management to understand their requirements so that your plan is consistent with marina operations:

The loadings on marina berths

Some marinas allow for berths to remain occupied provided the berth has a pontoon equivalent to the overall length (LOA) of the vessel occupying it. Vessels may also be allowed to bear against the fingers/pontoons noting that suitable or additional fendering is likely to be required.

Mooring considerations

Double up mooring lines, by running duplicated ropes to alternative bollards. Do not run duplicates to the same bollards – a single bollard failure should not release the craft from a safe mooring arrangement. The duplicate lines should be in good condition and run slightly slack to ensure that they are only required to work in the event of the chafing through the primary mooring lines. Vessels should not be secured to piles as this prevents pontoons moving with tidal and surge movements. Take particular care to protect against chafing. Ensure lines are made fast to substantial boat parts, for example mast steps, winches and so on, bearing in mind cleats are known to have been torn out of decks. Do not use chain to secure your boat to pontoon bollards. Chains have no ability to stretch, where ropes have a certain amount of give. Some marinas allow for anchors to be lowered in the marina berth to the sea bottom. Ensure there is enough slack to rise and fall of the vessel due to swell and storm surges. If the master or owner elects to stay on-board with the vessel, any mooring lines should be adjustable from on-board and sufficiently taut to ensure the vessel and pontoon move as one.

Other factors

You are likely to be required to disconnect all shore power leads and water hoses. Some marinas have particular arrangements for the stowage of vessel tenders. Marina management may determine the time when personnel are barred from the pontoons and/or hardstand areas. Ensure that you abide by any such direction.

Hardstand storage

Hard stand storage is a viable alternative for trailer vessels or vessels undergoing maintenance. Hardstand storage may have the additional considerations:

- Windage is considerably increased through hardstand storage. Take particular care to secure and stow all deck items. Place the vessel head to the wind if possible;
- Ensure wheels are chocked and trailer brakes applied;
- Attach the trailer to the nearest strong point(s);

Flying debris, particularly in the hardstand areas, may be lethal.

Appendix B

Regional Harbour Master broadcast messages

The below messages are examples of the Regional Harbour Master broadcast messages and the time line of when they may be sent out.

Note: These are examples only, and may vary depending on the developing weather system.

Whitsundays RHM Messages

Message to be sent to all island resorts, marinas and vessel owners/masters/operators

Low developing

Maritime Safety Queensland is closely monitoring the low off the Queensland coast. This low may develop into a cyclone in the next few days and may impact the Whitsunday Region.

The Regional Harbour Master may close the Whitsunday Pilotage Area to ensure marine safety, when deemed necessary.

The Regional Harbour Master will provide further advice in due course.

Cyclone Watch

The Australian Bureau of Meteorology has issued a tropical cyclone watch for coastal areas between [location] and [location].

A tropical cyclone watch is issued when the onset of gales is expected within 48 hours, but not within 24 hours.

The Regional Harbour Master may close the Whitsunday Pilotage Area to ensure marine safety, when deemed necessary. All operators are to ensure cyclone preparation and contingency plans are activated accordingly.

The Regional Harbour Master will provide further advice in due course.

Cyclone Warning

Initial

The Australian Bureau of Meteorology has issued a tropical cyclone warning for coastal areas between [location] and [location].

A tropical cyclone warning is issued when the onset of gales is expected within 24 hours, or are already occurring.

The Regional Harbour Master may close the Whitsunday Pilotage Area as early as [time] hours local time on [date]. All operators are to prepare to have all vessels returned to base, marinas or cyclone moorings when the direction is given.

The Regional Harbour Master will update after [time] hours today.

Closure

Due to the forecast of severe weather conditions associated with Tropical Cyclone [name], the Regional Harbour Master will close the pilotage area from [time] hours local time on [date].

All vessels are directed to return to base or seek shelter and to be secured by the closure time. No vessel movement will be allowed after the closure, without Regional Harbour Master exemption obtained through the Local Disaster Management Group.

The Whitsunday Pilotage Area will only be re-opened once the Regional Harbour Master is satisfied that it is safe for the navigation of vessels within the pilotage area, and will advise you accordingly.

Post Cyclone

The Pilotage area of Whitsunday is no longer under a Bureau of Meteorology cyclone warning or watch. With improved weather conditions, the Regional Harbour Master has declared that the pilotage area of Whitsunday re - open as at [time] hours local time on [date]. Masters are advised to navigate with extreme caution and keep a proper look out for debris and marine hazards within the area. Navigational aids may be out of position or damaged.

Hay Point/Mackay

Low developing

To the terminals/harbour/marinas

Maritime Safety Queensland is closely monitoring the low off the Queensland coast. This low may develop into a cyclone in the next few days and there is a possibility that the tropical low may develop into a tropical cyclone and impact the ports of Hay Point and Mackay.

The Regional Harbour Master may close the Pilotage Areas and direct ships to sea to ensure marine safety, when deemed necessary.

Please advise the Manager – Vessel Traffic Management of your plans in terms of the completion of loading ships and terminal/port preparation for a potential cyclone.

To vessels and ship's agents

Maritime Safety Queensland is closely monitoring the low off the Queensland coast. This low may develop into a cyclone in the next few days.

The Regional Harbour Master may close the Hay Point and Mackay Pilotage Area to ensure marine safety, when deemed necessary. Please ensure you are prepared and activate your cyclone contingency plans accordingly.

The Regional Harbour Master will provide further advice in due course.

Cyclone Watch

All ships at anchor off Hay Point are advised that the Australian Bureau of Meteorology has issued a tropical cyclone watch for coastal areas between [location] and [location].

A tropical cyclone watch is declared when the onset of gales is expected within 48 hours but not within 24 hours.

The Regional Harbour Master is closely monitoring the situation and will advise of further action for ship masters to take. In the meantime, all ships are advised to ballast down to sea going condition and be ready to evacuate the port if directed by the Regional Harbour Master. All routine engine immobilisation activity is suspended with immediate effect.

Cyclone Warning

All ships at anchor off Hay Point/Mackay are advised that the Australian Bureau of Meteorology has issued a tropical cyclone warning for coastal areas between [location] and [location].

A tropical cyclone warning is issued when the onset of gales is expected within 24 hours, or are already occurring.

All ships at Hay Point Anchorage are advised to ballast down and be ready to leave the Anchorage at 4 hours notice. The Regional Harbour Master will provide update after [time] hours local time on [date]. All ships are to maintain a listening watch on VHF channels 10 & 16 for Vessel Traffic Services broadcast.

The Regional Harbour Master will close the Mackay and Hay Point Pilotage Areas on from [time] hours local time on [date] until further notice.

All ships are to prepare to depart immediately. Hay Point Vessel Traffic Services will allocate a departure time to each ship to ensure all ships have departed in an orderly state by [time] hours local time on [date]. No ship movement will be allowed after the closure. Ships returning to Hay Point Anchorage will be allocated the same Anchorage position before the pilotage area closure.

Please be advised that the Hay Point Vessel Traffic Services Centre is handing over VHF listening watch to [location] Vessel Traffic Services Centre as of [time] hours local time on [date] and de-manning the centre. The Hay Point Vessel Traffic Services Centre will reopen once it is all clear after the passing of Tropical Cyclone [name].

The Hay Point Vessel Traffic Services phones have been diverted to [location]

Post Cyclone

The Pilotage area of Hay Point/Mackay is no longer under a Bureau of Meteorology cyclone warning or watch. With improved weather conditions, the Regional Harbour Master has declared that the [pilotage area/anchorage area] of Hay Point/Mackay will re-open as of [time] hours local time on [date].

Masters are advised to navigate with extreme caution and keep a proper lookout for debris and marine hazards within the area. Navigational aids may be out of position or damaged.