



PILBARA PORTS MARINE WEST - CYCLONE RESPONSE PLAN

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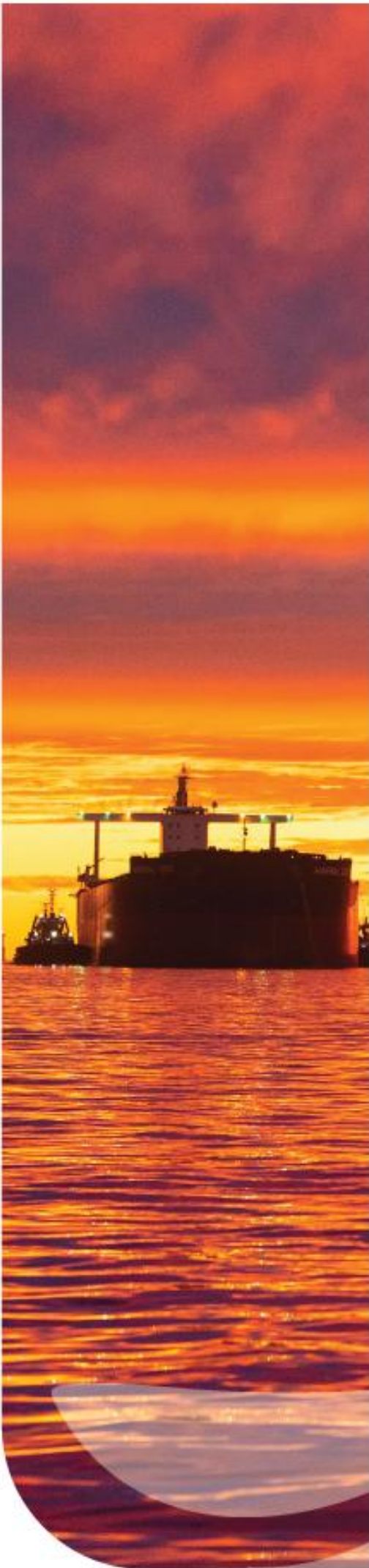


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DOCUMENT AMENDMENT TABLE

Version	Prepared By	Date	Amendment
1	Administration Officer	10/06/2016	Document established.
2	Harbour Master	01/10/2017	Adapted for Port of Ashburton
3	Harbour Master	25/10/2018	Annual Review
4	Harbour Master	24/10/2019	Annual Review
5	Harbour Master	12/10/2020	Annual Review
6	Harbour Master & DHM	28/06/2021	Amended to adapt Pilbara Ports West
7	Harbour Master	12/10/2021	Updates amended
8	Harbour Master & DHM	31/10/2022	Updates amended
9	Harbour Master	26.09.2024	DFES Warning Levels updated
10	Harbour Master	03.10.2024	DFES Warning Level references updated, Dampier Cyclone Response Plan incorporated

POLICY STATEMENT

This cyclone response plan acknowledges and gives effect to Pilbara Port's function under the *Port Authorities Act 1999* (The Act) to be responsible for the safe and efficient operation of the ports over which it has jurisdiction.

The aim is to ensure Pilbara Ports West (encompassing the ports of Ashburton, Cape Preston West, Dampier and Varanus Island) are as safe as is possible under cyclonic threat, and that Pilbara Ports properly discharges its 'duty of care' to all mariners and their vessels, and to port users and their marine infrastructure within the Port.

The policy also acknowledges the sensitive nature of the area surrounding Pilbara Ports West and Pilbara Port's responsibility to protect the environment of the ports.

In dealing with cyclones, the safety of people will at all times remain paramount.

The preparation, shutdown and re-opening of the Port in the event of a cyclone will be managed in accordance with these obligations, considering all available and relevant factors.

PREFACE

Tropical cyclones are amongst the most powerful and destructive meteorological systems on earth. On an average about eleven cyclones form in the Australian Region each cyclone season. This represents about 13 per cent of the global total. About half of these occur in the western region and about half of the total number of tropical cyclones become severe. Tropical cyclones in the western and eastern basins have around 25 per cent chance of making landfall, while those in the northern basin have an 80 per cent chance of making landfall.

Before a tropical cyclone forms it is difficult to predict its exact strength and path, including whether it will make landfall. Tropical cyclones which remain out to sea can still cause storm surges, gales and areas of heavy/flooding rainfall over land.

The use of satellite imagery and improved data acquisition combined with the latest technology in computer modelling have all but converted the art of predicting the weather and avoiding or being prepared for cyclones to a reasonably precise science. Despite these advances, there is no room for complacency or disrespect in relation to cyclones.

The aim of these procedures is to have in place appropriate measures to minimise the adverse effects of a cyclone and associated gales on all Pilbara Ports West users.

DEFINITIONS AND ABBREVIATIONS

DEFINITIONS				
Bureau of Metrology Cyclone Classification	Category	Average Wind Speed (km/h)	Max Gust (km/h)	Central Pressure
	1	63-88	<125	>985
	2	89-117	125-164	985-970
	3	118 -159	165-224	970-945
	4	160-199	225-279	945-920
	5	>200	>279	<920
Community Cyclone Stages	Level of Alert	Indication		
	Advice	An incident is active. Be aware and keep up to date.		
	Watch and Act	There is a possible threat. Take action now to stay safe.		
	Emergency Warning	There is a threat to lives and homes. You may be in danger and need to take immediate action.		
Cyclone	A large-scale storm system with winds that rotate anticlockwise in the northern hemisphere and clockwise in the southern hemisphere around and towards a low-pressure centre.			
Cyclone Mooring	Approved Purpose Designed Buoy Mooring			
Gale Force Winds	Winds of 34 – 47 knots. Gusts may be 40% higher (48 – 65 knots)			
Hazard Management Agency	Organisation that because of its expertise has Legislative Responsibility for overall control of an emergency situation.			
Storm Force Winds	Winds of 48 – 63 knots. Gusts may be 40% higher (67 – 88 knots)			
Terminal	Owner Operated loading/Unloading facility			
Tropical Low	A low originating from warm moist (tropical) air			

ABBREVIATIONS	
ACW	Ashburton Cargo Wharf
BoM	Bureau of Meteorology
CRP	Cyclone Response Plan
DBLB	Dampier Bulk Liquids Berth
DBHF	Dampier Bulk Handling Facility
DCW	Dampier Cargo Wharf
WA DoT	Western Australian Department of Transport
DFES	Department of Fire and Emergency Services
HM	Harbour Master
HMA	Hazard Management Agency
SES	State Emergency Service
The Act	Port Authorities Act 1999
WMT	Wheatstone Marine Terminal

CONTACTS		
Pilbara Ports	Phone	Mobile
Harbour Master (Marine West)	08 9159 6562	0427 485 708
Duty Harbour Master		0407 405 797
Dampier VTS Centre (24/7)	08 9159 6556	
Dampier VTS – VHF Ch 11	08 9159 6556	
Ashburton VTS – VHF Ch 14	08 9159 6556	
Varanus Island Port Control – VHF Ch 79	08 9159 6556	
State Government Agencies		
WA DoT	(08) 9435 7692 13 11 56	
WA Police – Onslow / Volunteer Marine Rescue - Onslow	(08) 9159 9100	
WA Police – Karratha	(08) 9143 7200	
DFES WA 24/7 (Regional Duty Co-ordinator) – Preferred number	1800 631 227	
DFES Karratha Office (General Enquiries Mon-Fri, 8am-4pm)	(08) 9159 1400	
DFES Onslow District Officer (General Enquiries Mon-Fri, 8am-4pm)	(08) 9159 1423	
DFES Communication Centre (COMCEN)	08-9395 9209	

CONTACTS		
SES – Western Australia	132 500	
Volunteer Emergency Services - Onslow	(08) 9184 6555	
Volunteer Fire & Rescue Services - Karratha	(08) 9144 2166	
Shire of Ashburton	(08) 9188 4444	
Shire of Onslow	(08) 9184 9301	
City of Karratha	(08) 9186 8555	
Onslow Hospital	(08) 9184 3200	
Karratha Hospital	(08) 9144 7777	
Cyclone Information	1300 659 210	
Emergency WA – Warnings & Incidents	13 33 37	
BOM – WA Tropical Cyclones Information	1300 659 210	

1. INTRODUCTION

This is an emergency procedure. This is an external document.

1.1 AUTHORITY

Pilbara Ports West Cyclone Response Plan has been drafted and is administered by Pilbara Ports in accordance with its responsibilities under The Act.

1.2 SCOPE

Pilbara Ports has statutory authority to give effect to these procedures within the gazetted port boundaries of the ports of Pilbara Ports West. This cyclone response plan applies to all port users under The Act and associated Port Authority Regulations 2001.

Directions given to Masters, Crews and Port Operators will be under the auspices of The Act, particularly Part 7 Division 3 Section 104 –108.

Pilbara Ports port infrastructure includes:

- Gazetted port waters including anchorages and moorings
- All port owned housing
- All Wharves, Berths, Shipping Channel & Navigation Aids
- Metocean and VTS equipment
- Administration buildings and associated landside infrastructure
- All port owned major assets

This procedure is a source of information to be used by all Pilbara Ports staff for Pilbara Ports West in preparing for a cyclonic weather event and returning to normal operations once the cyclonic weather event has passed. All staff have defined roles in the event of a cyclonic weather event and information contained within the procedure is provided to assist all employees in carrying out their duties.

Responsibility for the execution of this procedure rests with the HM or delegate in his absence.

1.3 Objectives

Cyclones present an indisputable risk to the Port through injury, damage to assets, damage to vessels, pollution, business interruption and /or financial loss. The objective of these procedures is to eliminate or mitigate that risk. This objective will be achieved by undertaking activities for the prevention of, preparation for, response to and recovery from, the specific risks associated with near or direct cyclonic impact.

1.4 Purpose

The purpose of this Cyclone Response Plan is to ensure that in the event of a cyclone affecting Pilbara Ports West:

- a) All large vessels including off-shore support vessels have adequate time to clear the ports and obtain adequate sea room before coming under the influence of gale or storm force winds associated with the cyclone.

- b) All small commercial vessels will be secured to their designated cyclone mooring before sea and weather conditions and/or darkness make their operations, including their mooring operations, more hazardous than normal.
- c) Small recreational craft and their crews are removed from, or properly secured against the pending risk.
- d) To provide a set of guidelines for decision making within the port in relation to cyclone response.
- e) All small commercial vessels supporting port activities have sufficient time to arrive at the Port of Dampier and secure to their cyclone moorings.
- f) All port users ashore and offshore, including visiting vessels and those intending to include the Port of Dampier as a port of refuge in their cyclone contingency plans, understand the requirements of Pilbara Ports in relation to cyclone response.

The marine cyclone response plan of terminal and other port operators should as far as practicable, compliment Pilbara Port's procedures.

In all circumstances, decisions of the HM in relation to cyclone response will take precedence over any other cyclone plans.

1.5 Risks

Pilbara Ports West lies within a stretch of coastline which is prone to cyclonic weather events with the annual cyclone season beginning on 01 November and concluding on 30 April.

It is interesting to note that Australia has recorded a cyclonic weather event in every calendar month.

The Port of Dampier alone is one of the largest tonnage ports in Australia, with over 6,000 ships visiting each year and dealing with exports such as Iron Ore, LPG, LNG, Condensate, Salt, Anhydrous Ammonia and other General Cargo. It also provides a base to the vessels that provide services to the offshore Oil and Gas Industry.

The Port of Ashburton and Varanus Island comprises of dry cargo vessels, Iron Ore Transhipment Barges (TSB's), LNG and Oil Tanker vessels. It also caters to offshore support vessels including tugs and workboats.

A cyclonic weather event may cause serious disruption to the operational activities of the ports.

1.6 Cyclone Development and Monitoring

1.6.1 Bureau of Meteorology (BoM)

Pilbara Ports receives tropical cyclone forecasts from the BoM. Once a cyclone has formed off the coast these forecasts are received at regular intervals. The forecast can be accessed at:

[:http://www.bom.gov.au/cyclone/index.shtml](http://www.bom.gov.au/cyclone/index.shtml) Department of Fire and Emergency Services (DFES)

The DFES commissioner is the HMA for cyclone emergencies in Western Australia. The DFES has the role of the Controlling Agency (CA) and is responsible for the issuing of the ALERT status for the duration of each cyclone.

DFES has the following levels of alert: :

Advice

- Advice is the first official alert stage and warns that an incident is active.
- During an Advice alert Pilbara Ports Marine West will operate as normal, the Cyclone Response Plan will be activated, and the progress of the cyclone closely monitored.

Watch and Act

- A Watch and Act alert is issued when there is a possible threat and action should be taken to stay safe.

Emergency Warning

- An Emergency Warning alert is issued when there is a threat to lives and homes, and there is a need to take immediate action.

Once the threat of the cyclone has passed and is moving away, the recovery phase of the plan can now be commenced, and operations can return to normal. Please see 'Pilbara Ports Response Stages' in Section 4 for actions to be taken by Pilbara Ports staff.

2. RESPONSIBILITIES

2.1 The Plan

This cyclone response plan, as updated, remains in force throughout the year, although the officially recognised cyclone season extends from **01 November to 30 April**.

This plan has been formulated on the basis of the State Hazard Plan for Severe Weather (Amalgamation of Westplan-Flood, Westplan-Cyclone and Westplan-Storm).

2.2 Terminal Operator

Within Pilbara Ports West, the terminal operators are responsible for ensuring that they have cyclone contingency plans or procedures in place. Copies of their plans should be updated at the start of the cyclone season.

The terminal operators should nominate a contact person within their plans to liaise with the Harbour Master in the event a cyclone.

2.3 Ship’s Masters

At all times the Ship’s Master is responsible for ensuring the safety of the vessel and its compliance with Pilbara Ports West guidelines, including the requirements of this cyclone response plan.

Emphasis is to be placed on the vessel maintaining adequate stability and suitable trim, ensuring that it can depart the port safely at short notice should the need arise.

2.4 Pilot’s/Loading Masters

To assist the HM and terminal operators, Pilots/Load Masters are requested to:

- a) Ensure that vessel masters are aware of these procedures.
- b) Facilitate effective execution of these procedures and communications between the Ship’s Master and the Harbour Master.
- c) Ensure cargo plan and operation have been modified to comply with the plan.

2.5 Pilbara Ports West Staff Roles and Responsibilities

ROLE	RESPONSIBILITY
Chief Executive Officer (CEO)	The CEO will provide advice and information as required to all relevant stakeholders including: The Minister Government Agencies Pilbara Ports Board The CEO will also assume all media responsibilities.
General Manager Marine (GMM)	GMM has overall responsibility for the safety of Pilbara Port’s Marine Operations. The HM will ensure that adequate and timely information is provided to the GMM for a consistent response strategy to be implemented during a cyclone event.
Harbour Master (HM)	The HM is responsible for the implementation and execution of this cyclone response plan. In consultation with the terminal operators nominated representative and the duty Pilots/loading Master the HM will: Initiate the orderly execution of the cyclone response plan. Monitor and ensure ongoing compliance. Keep port proponents informed of port status at various stages of the cyclone event.
Deputy Harbour Master/s (DHM)	The DHMs are to assist the HM with the implementation and execution of the plan.
Security Supervisor (SS)	The SS is responsible for ensuring that security is maintained throughout the event. The security of all Pilbara Ports staff and port users is the number one priority.
Maintenance Superintendent (MS)	The MS is responsible for ensuring that relevant port infrastructure is secured.

ROLE	RESPONSIBILITY
Landside Operations Superintendent (LOS) and Landside Operations Coordinator (LOC)	The LOS and LOC are responsible to the HM for all Pilbara Ports controlled berths Once the ALL CLEAR is given by the HM they then have the responsibility of coordinating the return to normal operations.
Health & Safety Advisor (HSO)	The HSO and SS will work together and are responsible for ensuring that Safety is maintained throughout the event. The safety of all Pilbara Ports staff and port users is the number one priority.
Vessel Traffic Service Officer (VTSO)	VTSOs will play a critical role in providing information to ships likely to be affected by the cyclone. VTSOs will maintain accurate records/tracking of the cyclone and ensure that all relevant advice is conveyed to the HM or DHM.
All other port personnel	Everyone has a role to play in the event of a cyclone. Preparation is the key to minimising any damage that may be associated with a cyclonic event. All personnel are to ensure that they assist where possible and applicable in preparing for the cyclone.

3. GENERAL

3.1 Pre-Season

Pilbara Ports Marine West Cyclone Response Plan is to be reviewed annually prior to 01 November and updated or amended as necessary.

It is recommended that terminal operators regularly review their procedures and documentation to ensure that they reflect the current practice.

Masters and operators of vessels working in the vicinity of Pilbara Ports Marine West must have a cyclone plan in place before the start of the cyclone season and it must be clear to all parties what each vessel will do during the approach of a cyclone.

The Port Authorities Regulations 2001 Schedule 1 subdivision 3 49 - 58, governs the installation and use of cyclone moorings within Pilbara Ports Marine West. On a need basis, the Harbour Master may approve the installation of moorings. Owners should ensure that their mooring(s) comply with the requirements of the regulations, including the requirement to supply the HM with a completed annual inspection report prior to 30 October.

See [Pilbara Ports Mooring Documents](#) for full details of mooring requirements.

Non-approved, sub-standard or unidentified moorings should be removed by the mooring owner prior to the start of the cyclone season in accordance with Pilbara Ports regulations. If the mooring owner fails to act diligently in this regard, Pilbara Ports may carry this out at the owner's expense.

3.2 Cyclone Moorings

The Port of Dampier has approximately one hundred and seventy moorings of which two-thirds are cyclone rated and managed by Pilbara Ports. Mariners should note that whilst Dampier is a “Safe Port”, it affords limited protection in cyclonic conditions. There are no public cyclone moorings in the Port and the mooring areas do not provide suitable shelter in other than moderate conditions. Most areas are shallow and exposed from some quarters. In some circumstances, mooring areas in the Port will afford little, if any, protection at all.

Operators of small vessels working in the general vicinity of the Port of Dampier that have designated the Port as a cyclone haven, should apply to Pilbara Ports well in advance of the cyclone season, to lay to an approved cyclone mooring for each of their vessels. These moorings must be properly designed by a certified and suitably qualified Engineer or Naval Architect in accordance with the Pilbara Ports mooring guidelines.

The Port of Ashburton only provides cyclone moorings for the tugs and pilot boat used by the WMT (Tug Pens in the ACW).

Port users of the Port of Onslow are to refer to the WA DoT Cyclone community information sheet at the following link:

<https://www.transport.wa.gov.au/imate/cyclone-community-information.asp>

There are currently no cyclone moorings installed at the ports of Cape Preston West and Varanus Island.

3.2.1 Mooring Certification

Approved cyclone moorings must be properly designed by a certified and suitably qualified Engineer or Naval Architect in accordance with Pilbara Ports mooring guidelines.

3.3 Cyclone Contingency Plans

Pilbara Ports anticipates that all vessels will have a cyclone contingency plan in place when operating in or from Pilbara Ports Marine West.

The plan may be to:

- Proceed to sea in sufficient time to establish safe sea room between the vessel and the cyclone;
- Proceed to a cyclone mooring.

For the Port of Dampier, vessel cyclone plans and arrangements should allow sufficient time for the vessel to enter the Port before it is closed to secure to the mooring and vacate the vessel before the onset of gale force winds. In the interest of crew safety, these operations should, whenever possible, be undertaken during daylight hours.

3.4 Safe Haven

It is recommended that small vessels seeking safe haven in the Port of Dampier should utilise an anchorage position between West Lewis Island and Enderby Island which is

an area of approximately two square miles with 8 to 12m depth at chart datum. The holding ground is said to be good. The islands on either side are steep-sided, which tends to deflect the wind. During a cyclone, Pilbara Ports permits vessels seeking safe haven to enter the Port and proceed to this area or to a suitable anchor position if, in the Master's opinion, the vessel will be safer in the prevailing conditions at this new position. Such an anchor position will be approved by the HM on a case-by-case basis.

Currently there are no provisions for a safe haven in the Port of Ashburton for any other vessels. The facility at Beadon Creek may do so for smaller vessels and its operators. Those proposing to use it should make the necessary arrangements with WA DoT before the cyclone season commences..

Vessels at Varanus Island must be cleared away well in advance taking into account following factors:

- The cyclone moorings are in Dampier.
- Transit time required to reach their cyclone moorings.
- Sea and swell conditions proceeding a cyclone.
- The time to ferry the crew off the vessel at moorings once secured.

3.5 Vessel state of readiness

Port regulations require that the Master of a vessel berthed at a wharf within the port shall ensure that the vessel is always capable of vacating the berth at short notice. During the cyclone season, and particularly in the event of a tropical low or cyclone forming off the Northern or Western coast, this requirement becomes paramount.

To this end, the Master shall always ensure that, engines and other essential machinery is fully operational, that the vessels draft, trim and stability are adequate and that there are adequate crew members on board to enable the vessel to vacate the berth and sail at short notice.

Vessel engines should not be immobilised without the permission of the Harbour Master.

3.6 Cyclone Threat Assessment Criteria

Pilbara Ports does not have designated specific zones or distances from a cyclone as trigger points for activating these procedures. Instead, cyclones and tropical lows will be assessed and dealt with on a case-by-case basis in relation to their potential severity. Whilst sea state is a major consideration for small craft, work boats and laden ships in the main shipping channels, the proximity of gale force winds associated with the cyclone (or low) will also have a bearing on the decision-making process at the time.

Decisions to close or open the port will be based on a worst-case scenario concept to ensure adequate margins of safety for all personnel, small craft, other vessels and port facilities.

Pilbara Ports requirement to clear berths and close the Port may be more conservative than the various port operators plans require. When executing their plans, terminal and port operators should know the port assessment and action influenced by potential winds, may be well ahead of any sea state criteria or ahead of any advice concerning the likely impact obtained from the BoM.

Decisions may also be influenced by the desirability to perform some tasks, such as mooring smaller craft, in daylight (commercial and non-commercial craft included).

Tropical lows will be monitored and if deemed necessary, action taken on the basis that the low may deepen to a cyclonic system at very close range to the port.

Category 1 cyclones will be viewed as having the potential to deepen to Category 2 or 3 immediately prior to crossing the coast or at close range to the port. In assessing such potential, advice and information will be obtained from the BOM and other appropriate sources if available.

4. RESPONSE STAGES

Pilbara Ports will respond to a cyclone threat in five stages:

STAGE	KEY ELEMENT	PARAMETER	ACTION
1	Monitor	Cyclone or tropical low has formed in northern waters.	Monitoring the system to make early assessment of path.
2	Prepare	Cyclone tracking toward port in such a way as to pose a potential risk.	Prepare port and secure loose gear. Check loading details. Sailing drafts and tide requirements. Communication between port and port users.
3	Clear Port	Potential for gale force winds within 12 hours.	Clear large vessels from port. Clear anchorage. Port closed to large vessels.
4	Shut-down	Potential for gale force winds within six hours.	All small vessels secured to cyclone moorings. Port closed to all.
5	Re-open port	Cyclone threat passed.	Check nav aids, channel and berths. Open anchorage. Return to normal operations.

The actions associated with each stage are summarised as follows:

4.1 Stage 1: Monitor

Advice is received that a cyclone or tropical low has formed somewhere off the Northern or Western coasts.

Pilbara Ports will monitor the system with appropriate resources to make an early assessment of its likely path and potential to eventually impact on Pilbara Ports West.

4.2 Stage 2: Prepare

A tropical low or cyclone is tracking in such a way that there is potential for the system to impact on the port/s.

Pilbara Ports will begin to prepare the port for closing down. This stage will involve extensive communication and consultation between Pilbara Ports, terminal operators and Pilots. Operational plans and intentions of the Port Users will be discussed and evaluated against possible response scenarios. Sailing drafts and tidal requirements/restrictions etc. will be discussed so that the effects on ships and operators of any Pilbara Ports action in relation to the cyclone will be understood by all parties. If time permits a formal meeting will be held with all available stakeholders to discuss the measures in place and to be taken.

Once gale force winds are potentially within 24 hours of a Pilbara Ports Marine West port, vessels will not load so as to become tidally constrained, without prior consultation and agreement with the HM. In some circumstances it may be deemed necessary or advisable to cease loading to ensure that the vessel/s does not fail to clear the Port before the onset of gale force winds. This process will be ongoing; following each forecast update or any substantial change in the prognosis, it may be necessary to revisit terminal operators and port stated intentions.

4.3 Stage 3: Clear Port

Gale force winds expected (on a worst-case scenario basis) within 12 hours.

COMMERCIAL VESSELS

Pilbara Ports will commence to clear the Port and anchorages of all commercial vessels, with a view to having all such vessels clear of port limits 12 hours prior to the possible onset of gale force winds. This timeframe is designed to ensure adequate margins of safety, and to provide ships adequate time to clear the coast before encountering cyclonic conditions.

RECREATIONAL VESSELS

WAPOL Dampier, in consultation with the HM and the WA DoT, normally close the Port of Dampier to small pleasure craft when DFES declares an 'Advice' alert. The local boat ramps will be chained off and signs erected. This precaution is to prevent craft from proceeding to sea; it does not prevent returning craft from using the ramps. In some circumstances, sea conditions within the port may cause Pilbara Ports, in consultation with the WAPOL Dampier and the WA DoT, in the interest of safety, to initiate the closure of the Port to small pleasure craft prior to the DFES declaring an 'Advice' alert.

The Port of Ashburton does not have any facilities to launch or recover recreational crafts. The adjacent Beadon Creek facility may have such arrangements and WA DoT should be contact for further information.

4.4 Stage 4: Shut Down

Gale force winds expected (worst case scenario basis) within six hours.

The Port will be closed to all commercial operations. Vessels will be directed to cease normal activities and secure to their moorings, proceed to their pre-planned safe havens or proceed to sea.

All vessels on moorings should be secured, shut down and crews ferried ashore well before the onset of gales. Planning should ensure mooring and crew transfers are undertaken during day light hours, where possible, to maximise safety.

During this Shut Down stage the Port will be closed to all vessels except for vessels requesting to pass through the Port en route to safer waters and vessels seeking safe haven where there is no alternative.

In the interest of safety, Pilbara Ports recommends the de-crewing of all vessels on moorings should occur prior to the onset of gale force winds and during daylight hours.

In the event of an imminent DFES “Emergency Warning” alert, the Vessel Traffic Services Centre may be de-manned. Sécurité messages advising of this fact will be broadcast on VHF Ch 11, 14 and 79 prior to de-manning.

4.5 Stage 5: Re-Open the Port

Cyclone or the risk of impact has passed.

The Port will be re-opened as soon as conditions permit. This may well result in a phased re-opening. The outer anchorage or even inner anchorages may be opened, before particular berths are reopened for operations. The re-opening of the Port (or part of the Port) does not constitute that conditions will necessarily be suitable for normal operations. Terminal operators and Masters of vessels will need to make their own assessments as to the suitability of prevailing conditions for safe operations.

The anchorage will be opened once the wind falls below steady gale force and the sea conditions permit safe anchoring. As an indication, swell within the port would probably be less than **1.3m** at that time.

Vessel Masters, port users and stakeholders will be advised by appropriate communication methods as to when the Port is re-opened.

4.5.1 Terminal Operator’s Declaration

Prior to berthing and resuming normal operations, the terminal operators will need to declare to the Harbour Master that their berth facilities and associated navigational aids and channel has not been compromised by the effects of the cyclone. The detail of the declaration required from terminal operators will be determined on a consultation basis with Pilbara Ports and will be based on the cyclone severity and the impact experienced within the Port.

This declaration will address issues such as:

- a) Jetties and wharves still affording a safe berth for vessel alongside.
- b) Wharf fendering and mooring arrangements being serviceable.
- c) Berth pocket or basin remaining at the charted depth.
- d) Navigation aids remaining in their correct position and serviceable, particularly before any night operations are undertaken. Temporary substitution of damaged Navigation Aids by activation of Virtual Navigation Aids will be considered to facilitate night operations.
- e) Channel proved to have maintained its declared depths and width as charted.

Damage to navigation aids, channel or berth facilities resulting from the cyclone are to be reported to the HM immediately. Any damage to the port infrastructure or matters of concern to mariners will be issued by a Pilbara Ports Marine Notice.

5. EMERGENCY PROCEDURES

In the event that a vessel is unable for any reason to comply with these cyclone procedures, the Harbour Master will initiate contingency arrangements which may include activating the Emergency Response plan.

6. PROCESS OWNER

The Harbour Master is responsible for this External Document.