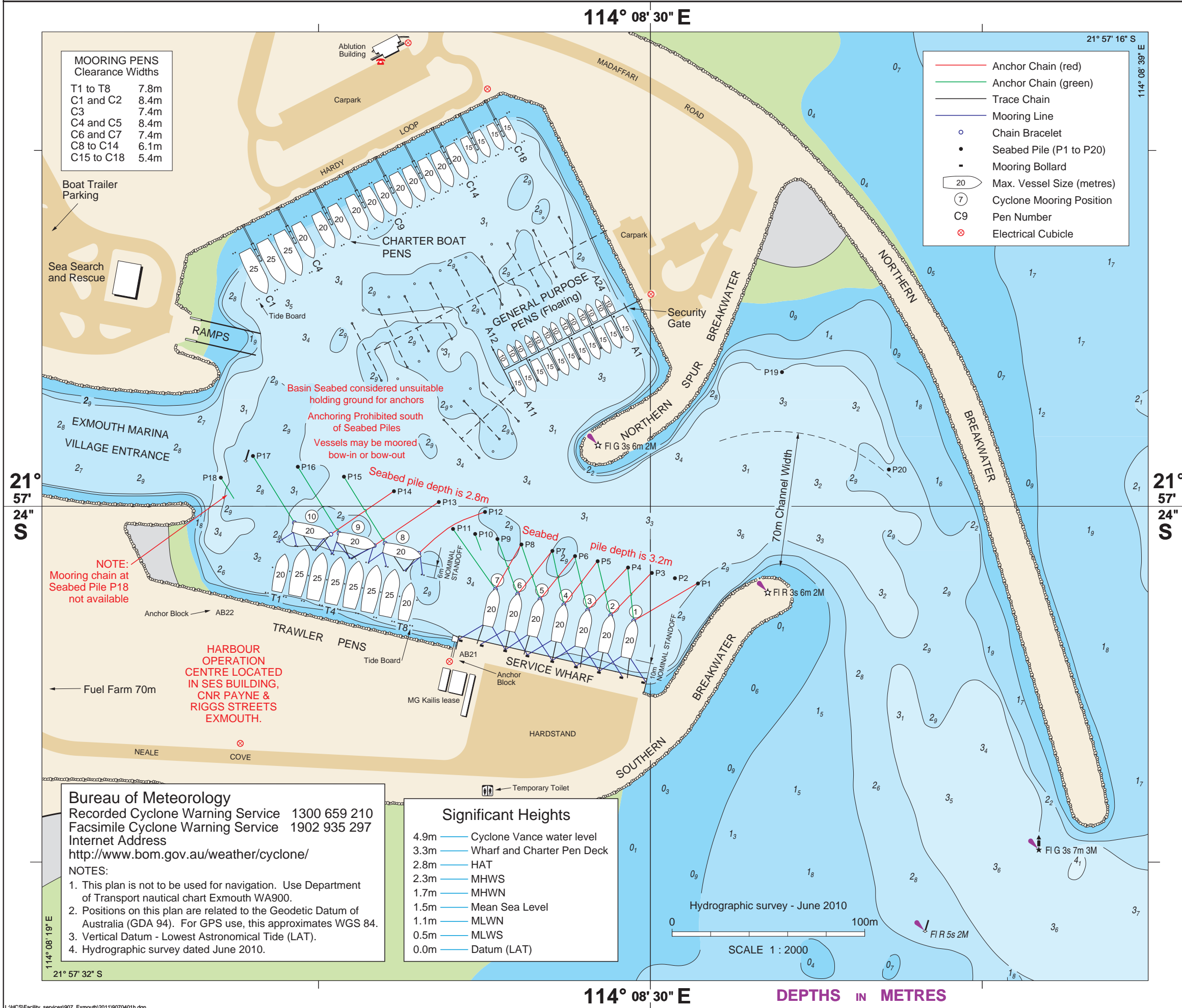




# EXMOUTH BOAT HARBOUR (INNER & OUTER) CYCLONE CONTINGENCY PLAN

NOVEMBER 2011 - APRIL 2012



**MOORING PENS Clearance Widths**

T1 to T8	7.8m
C1 and C2	8.4m
C3	7.4m
C4 and C5	8.4m
C6 and C7	7.4m
C8 to C14	6.1m
C15 to C18	5.4m

- Anchor Chain (red)
- Anchor Chain (green)
- Trace Chain
- Mooring Line
- Chain Bracelet
- Seabed Pile (P1 to P20)
- Mooring Bollard
- 20 Max. Vessel Size (metres)
- 7 Cyclone Mooring Position
- C9 Pen Number
- ⊗ Electrical Cubicle

**Significant Heights**

4.9m	Cyclone Vance water level
3.3m	Wharf and Charter Pen Deck
2.8m	HAT
2.3m	MHWS
1.7m	MHWN
1.5m	Mean Sea Level
1.1m	MLWN
0.5m	MLWS
0.0m	Datum (LAT)

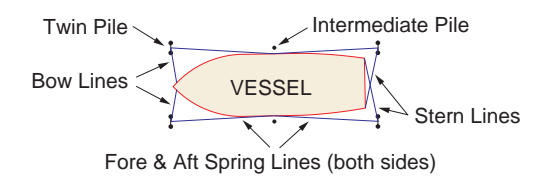
**Bureau of Meteorology**  
 Recorded Cyclone Warning Service 1300 659 210  
 Facsimile Cyclone Warning Service 1902 935 297  
 Internet Address <http://www.bom.gov.au/weather/cyclone/>

**NOTES:**

- This plan is not to be used for navigation. Use Department of Transport nautical chart Exmouth WA900.
- Positions on this plan are related to the Geodetic Datum of Australia (GDA 94). For GPS use, this approximates WGS 84.
- Vertical Datum - Lowest Astronomical Tide (LAT).
- Hydrographic survey dated June 2010.

## RECOMMENDED MINIMUM MOORING ARRANGMENTS (for Cyclone / Severe Weather)

### CHARTER & TRAWLER PENS



Twin Pile Mooring Points have 100mm diameter Mooring Bar & 45mm diameter Mooring Link

Bow lines to be secured to, or passed through fairleads, as near as practical to the bow.

Stern lines to be crossed and secured to the opposite stern quarter.

Spring lines to be attached to vessel mid-ships.

All lines (bow & spring or stern & spring) are to be secured to a Mooring Link on the Mooring Bar at the Twin Pile Mooring Point. The second Mooring Link is for the vessel in the adjacent pen.

Intermediate pen piles are not to be used for cyclone moorings.

Vessel to be centrally located within Mooring, as shown.

**Tabulated Line Loads are Minimum Safe Working Loads. A minimum Factor of Safety of 3 should be applied when selecting mooring lines (based on Breaking Load).**

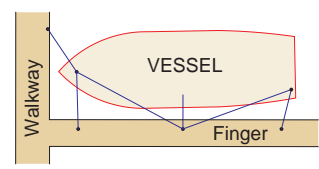
For Example: A 25m vessel in a charter boat pen. Table on the drawing indicates a Bow & Stern Line Load of 16.8 tonnes. This is a Minimum Safe Working Load. When a Factor of Safety of 3 is applied, the mooring line needs to have a minimum breaking load of 50.4 tonnes (ie. 3x16.8t).

Vessel Length Overall (m)	Overall Pen Size (m)	Bow & Stern Line Loads (tonnes)	Spring Line Loads (tonnes)
<b>Trawler Pens</b>			
25	27	16.8	5.5
20	27	16.4	4.4
16	27	14.0	3.5
<b>Charter Boat Pens</b>			
25	27	16.8	7.5
20	22	11.3	5.8
15	17	6.9	4.3
<b>Cyclone Moorings - Positions 1 to 10</b>			
20		15.4	

**Moorings sequence shall be strictly in order from 1 to 7 for Service Wharf and 8, 9, 10 for Trawler Pens**

### GENERAL PURPOSE PENS (Floating)

Vessel Length Overall (m)	Overall Pen Size (m)
10	4.0
15	8.1



Aerial photography flown December 2008

# EXMOUTH BOAT HARBOUR (Inner and Outer)

## CYCLONE CONTINGENCY PLAN

**November 2011 – April 2012**

### Coverage of the Plan

This November 2011 – April 2012 Exmouth Cyclone Contingency Plan covers the waters within the Exmouth Boat Harbour (Inner and Outer). The waters of the Exmouth Marina Village (Canals) are now covered by the Shire of Exmouth's Exmouth Marina Village Canal Mooring and Management Plan and Standard Operating Procedures. A copy of the Shire's document is available from the Shire's web site at: <http://www.exmouth.wa.gov.au/CommunityEngage/plan>

**The waterway adjacent to Super Lot D and E of the Exmouth Boat Harbour does not contain any cyclone rated mooring facilities for vessels and as such vessels should not traverse or moor in that waterway during the activation of the Exmouth Boat Harbour Cyclone Contingency Plan.**

### Purpose of the Plan

Within the limits of the Department of Transport's (Transport) responsibilities and authority, define procedures to: maximise the opportunity for vessels to shelter within the harbour; reduce the risk to life and vessels operating in the area; and protect as far as possible the harbour infrastructure and environment.

### Activation of the Plan

The Plan is to be automatically activated once a Cyclone Watch or Warning has been issued for the Exmouth area. The initial activation will be an internal process at Transport generated by Transport's Maritime Officer (MO) involving preliminary basic actions. *The activation involving harbour users will commence on the issue of a Blue Alert for the Exmouth area.*

### Harbour Coordinator

The Harbour Coordinator will be appointed from the following people by the MO on the issue of a Blue Alert.

Stuart Fitzgerald (Transport MO Exmouth)	9947 8202	0447 856 774	9949 2078 facsimile
David Skene (Transport, Exmouth)	9947 8201	0418 910 027	9949 2078 facsimile
Daren Hutchins (Transport RM Gascoyne)	9941 6801	0409 114 851	9941 106 (f) 9941 4724 a/h
David Dowling (MG Kailis Pty Ltd)	9949 2497	0427 974 373	9949 1497 a/h

DPI Satellite Phone 0420 107 049

Contact details may change. If you are experiencing difficulties contact: Exmouth Police 9947 8700 or Exmouth SES 9949 1488.

### Harbour Coordinator's Role

Facilitate the coordination of activities within the harbour in accordance with this Plan. Facilitate a flow of information between harbour users. Provide a link with the Exmouth SES and Exmouth Police.

### Responsibilities of Masters and Owners of Vessels

Masters and owners who choose to operate in cyclone prone areas during the cyclone season: do so at their own risk; need to be watchful for the development of severe weather; are responsible for ensuring their vessels have an onboard cyclone contingency plan; and, should have a current copy of this Plan onboard the vessel. Furthermore, masters and owners are responsible for: the safety of crew and vessel; the provision of mooring lines; and any damage that may be caused to other vessels and public facilities by their vessel.

**This Plan in no way replaces the legal obligations of owners and masters of vessels, nor does it seek to override the responsibility of a master to take appropriate precautions for the safety of the crew, or to interfere with the master's independent discretion.**

In the general course of business no one is empowered under the plan to direct or instruct the master or owner of a vessel in such a way that their legal obligations to their crew and to their vessel are compromised. However in instances where the HC determines the actions of a vessel master endanger the lives of harbour users, the HC reserves the right to invoke legislative powers to give a direction to the vessel master to avoid any potential loss of life. The HC must fully consider the level of reasonableness in giving the direction.

The boat harbour is a sheltered anchorage only and cannot be guaranteed to be a safe haven. Furthermore, there are no suitable onshore shelters at the harbour for crew during a cyclone. Refer to Exmouth Police or SES for information.

The movement of marine traffic in and out of the boat harbour is self managed. The Plan does not and is not intended to interfere with that status.

### Communication with Harbour Coordinator

The public telephone network (including mobile and facsimile services) should be used as much as possible to coordinate activities. The Harbour Operation Centre (HOC) is located in the SES building in Exmouth (cnr Payne and Riggs Street). The telephone is 9949 1488, 0428 936 507, fax 9949 1514.

While the HOC will not be providing scheduled radio broadcasts (in line with industry consultation) frequencies will be monitored, while practical, through several local sources including the Exmouth VMRG (callsign is "Exmouth Marine Rescue") and MG Kailis: "Exmouth Marine Rescue" VHF 16 and 21 HF 2182 KHz 27.88 and 27.90 MHz MG Kailis "Learnonth Base" and "Exmouth Base" HF 4125 KHz

A 24 hour, 7 day week HF service operates from the Water Police Coordination Centre that monitors the 4125, 6215 and 8291 kHz distress and calling frequencies. This service covers WA coastal waters within 200 nautical miles off shore. The closest transceiver is at Port Hedland and the callsign is "Coast Radio Hedland".

## Overview of the Plan

### 1. Cyclone Watch or Warning

MO activates internal processes within Transport awaiting the issue of a Blue Alert. Establish/Confirm availability of HOC in Exmouth SES building.

### SES Stage BLUE

The MO appoints the Harbour Coordinator on the issue of the Blue Alert. Harbour Coordinator's actions:

- Maintain a link with Police, SES and the Shire of Exmouth.
- "Close" the recreational Boat Ramp to outbound traffic.
- Ensure necessary activity for securing the harbour precinct.
- Confirm fuelling facilities and harbour precinct have been secured.

Masters and Owners duty:

- If en route to Exmouth, maintain contact with Harbour Coordinator.
- Plan to be secured in the harbour at least 24 hours before cyclone.
- Be aware of submerged mooring chains in southern portion of harbour basin.
- Moor vessel in accordance with Cyclone Mooring Guidelines. Contact Harbour Coordinator if unsure.
- Ensure sufficient fuel on board to clear the harbour after the cyclone and return.
- Secure all equipment or remove the equipment from the harbour precinct.

### SES Stage YELLOW

Harbour Coordinator's actions:

- Switch off electrical power in accordance with Section 2.3 of main cyclone plan.
- Any vessel which is known to usually be in the area but has not been accounted for, should be notified to the Police.
- Seek appropriate shelter (e.g. HOC building) until SES declare the "All Clear".

Masters and Owners duty:

- Ensure vessel and area of responsibility have been secured.
- Provide details of personnel remaining on vessels during cyclone to Police and HC.

### SES Stage RED

There are no actions defined for the Harbour Coordinator. Consider your own safety and observe standard SES procedures. Harbour Coordinator's actions:

- When it is safe to do so (winds/rain have subsided), inspect harbour precinct to identify any situation(s) requiring high priority attention.
- Masters/Owners duty:

- Confirm with the Harbour Coordinator, the safety of any person who remained on board.
- Ensure seabed mooring chains are correctly repositioned and mooring lines retrieved.
- Advise the Coordinator of any known hazards or damage to facilities.

**Caution:** Exercise care and proceed with caution when leaving moorings as navigation aids may be displaced or missing, and there may be floating/submerged hazards.

### Acknowledgment

This Cyclone Contingency Plan has been prepared in consultation with the users of the Exmouth Boat Harbour. The Plan has the potential to preserve life and property. Your support is crucial to the effectiveness of the Plan.



Government of Western Australia

Department of Transport

This document is available at: <http://www.transport.wa.gov.au/marine/19128.aspx#cyclonecontingencyplans>

Important Note: Harbour Coordinators, Masters and Owners please consider your "DUTY OF CARE" responsibilities to remain safe and reduce risk of accidents or injury.

### Tidal Storm Surge

Harbour users need to be aware that a significant positive storm surge may coincide with a high astronomical tide to result in an extreme water level. The effect of storm surge is most severe when these extreme meteorological events occur in conjunction with high tide. For example during Cyclone Vance (22 March 1999) a storm surge of 3.5 metres produced a storm tide of 4.9 metres above Chart Datum. This level was 1.6 metres above the height of the Charter Pen & Wharf deck. If practicable, the Harbour Coordinator will monitor any significant surge.

### Cyclone Mooring Arrangements (Refer to Map on reverse side and Cyclone Mooring Guidelines handout)

The limited number of mooring pens and mooring positions may be insufficient for the number of vessels seeking shelter. Every effort will be made to maximise the use of the harbour, however masters should be prepared (as part of their own cyclone contingency plan) to seek alternate shelter if necessary. Mooring priority will be given to vessels covered by an existing mooring agreement. Mariners should be aware of submerged mooring chains from seabed mooring piles in the southern portion of the harbour basin. The harbour basin seabed is unlikely to be suitable holding ground for vessels anchored in cyclonic weather.