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AN INITIATIVE OF THE EXMOUTH LOCAL EMERGENCY MANAGEMENT COMMITTEE





#### FOREWORD

This booklet has been produced on behalf of the Exmouth Local Emergency Management Committee in association with the Exmouth State Emergency Service, the Department of Fire and Emergency Services and Shire of Exmouth. It provides you with cyclone information relevant to the Exmouth district.

The northwest Australian coastline from Broome to Exmouth is the most cyclone-prone region of the entire Australian coastline, having the highest frequency of coastal crossings. About 75% of severe tropical cyclone crossings in Australia between 1970 and 2018 were in WA.

This booklet is designed to provide residents and visitors of Exmouth with helpful cyclone information, along with services the Shire of Exmouth provide to assist residents and visitors before, during and after a cyclonic event.



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## WHAT IS A TROPICAL CYCLONE?

Tropical Cyclones are low pressure systems that form over warm tropical waters and have gale force winds (sustained winds of 63 km/h or greater and gusts in excess of 90 km/h) near the centre which can extend hundreds of kilometres from the cyclone centre. If the sustained winds around the centre reach 118 km/h (gusts in excess 165 km/h), then the system is called a severe tropical cyclone.

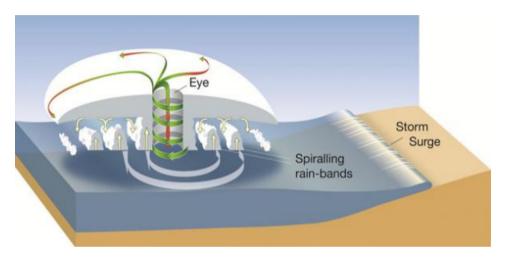


Diagram of a Tropical Cyclone (Courtesy of the Bureau of Meteorology)

## HOW ARE TROPICAL CYCLONES NAMED?

There is a list of 104 names that are used by the Bureau of Meteorology to name tropical cyclones in the Australian Region. The name of a new tropical cyclone is usually selected from this list of names. The names are normally chosen in sequence; when the list is exhausted, we return to the start of the list.

For further information on tropical cyclones and the list of name visit the Bureau of Meteorology website at <u>bom.gov.au/cyclone/about/</u>

#### HOW STRONG IS A TROPICAL CYCLONE?

The severity of a tropical cyclone is described in terms of Categories ranging from 1 (weakest) to 5 (strongest) related to the maximum wind gusts as shown in the table below.

#### **CATEGORY 1**

Strongest winds: Gales, 90 - 125 km/h

*Typical Effects:* Negligible house damage; damage to some trees and caravans; boats may drag moorings.

#### **CATEGORY 2**

Strongest winds: Destructive, 125 - 164 km/h

*Typical Effects:* Minor house damage; significant damage to signs, trees and caravans; risk of power failure; small boats may break moorings.

#### **CATEGORY 3**

Strongest winds: Very destructive, 165 - 224 km/h

*Typical Effects:* Some roof and structural damage; some caravans destroyed; power failures likely.

#### **CATEGORY 4**

Strongest winds: Very destructive, 225 - 279 km/h Typical Effects: Significant roofing and structural damage; many caravans destroyed and blown away; dangerous airborne debris; widespread power failures.

#### **CATEGORY 5**

Strongest winds: Very destructive, more than 290 km/h Typical Effects: Extremely dangerous with widespread destruction.

Strong enough for you? A Steel power pole bent by the wind strength of Tropical Cyclone Vance, 1999



### STORM SURGE

A storm surge is generated by tropical cyclones forcing water onshore over a generally limited stretch of coastline. It will normally build up over a time frame of a few hours, as the cyclone or similar weather system approaches. Normally wind-waves on top of the surge will contribute to its effect.

Storm surges are at their most dangerous when they arrive at high tide when the sea is already at its high point. The resulting 'storm tide' can inundate inland areas.

Storm surges, like cyclones themselves, are hard to predict. The paths of cyclones are often erratic, making it hard to forecast where and when they will make landfall - or how high the tide will be when a storm surge strikes. Other elements contributing to the risk of storm surge include the cyclone's speed and intensity, the angle at which it crosses the coast, the shape of the sea floor, and local topography.

(Reference: Bureau of Meteorology)

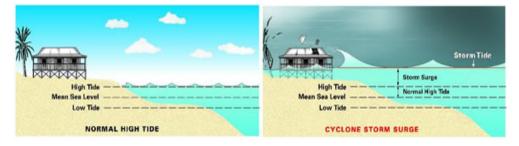


Diagram of a storm surge (Courtesy of the Bureau of Meteorology)

#### Did you know?

- The average life of a cyclone is one week.
- After the eye passes and the other side of the cyclone hits, the wind blows with equal strength but in the opposite direction.
- Cyclone Tracy (Darwin) was Australia's most destructive cyclone.
- Tropical Cyclone Vance has the strongest wind gust recorded on the Australian Mainland at 267km/h.

(Reference: Australian Emergency Management Institute)

## WHAT CAN I DO TO PREPARE?

We never know if there will be cyclones approaching Exmouth every year but we know we do need to prepare for cyclone season every year as if one will come our way. One of the most important things that everyone can do is to prepare your property for cyclone season.

#### PREPARING YOUR PROPERTY FOR CYCLONE SEASON

Preparing your property means that damage from a cyclone impact is minimized which in turn contributes to the saving of both life and property. Use the following checklist as guide only and tick the boxes once you have completed the task. For a more comprehensive list, visit the Department of Fire and Emergency Services website (www.dfes.wa.gov.au)

- Trim trees and branches away from your house and remove / trim any trees you think may blow over
- Keep your property neat and tidy, ready to pack things away if needed
- Have sandbags ready to put in front of doorways in case of heavy rainfall or flooding
- Make sure your roof is in a good condition and the shutters on the windows work and are in a good condition
- □ Find out how to turn your water, power and gas off
- Check if your insurance is up to date and covers cyclones and flood / water damage
- □ Keep a list of emergency numbers at hand
- Have a household cyclone action plan so your family knows what to do in a cyclone
- Make or check your emergency kit. Remember you may not have power, water or phone for a while after a cyclone.
- □ Know where the welfare centre is and how to get there.
- Decide where best to shelter your pets. <u>Remember if you go to</u> <u>a welfare centre they can't come in</u>.
- □ Have a plan to secure your boat, caravan or trailer

### PREPARING YOUR PETS AND ANIMALS FOR CYCLONES

Remember to prepare for your pets as well as your family. Be prepared to bring your pets inside early and pick a spot in your house where they will stay during the cyclone.

Ensure your pets will be comfortable during a cyclone by having extra bedding and toys available for them. Ensure you have at least 2 weeks' worth of food and water for your pets just in case shops sell out.

Following a cyclone, fences may be down and you don't want your dog wandering. Make sure you have the means to be able to contain them within your property after the cyclone.

#### PREPARING YOUR FAMILY EMERGENCY KIT

Your family emergency kit should include items that will help you when the essential services are not available (power, water, phone). Suggested items include, but are not limited to:

- Water
- Clothing
- Blankets
- Baby care products
- Canned or dry foods
- Medicine/First Aid Kit
- Ear plugs or headphones
- Books, playing cards or games
- Radio, torch & spare batteries
- Appropriate cash supply (EFTPOS may not work post cyclone)

Keep your family emergency kit in an easily accessible place and ensure all members of the household are aware of its location. For a more extensive list visit the DFES website

www.dfes.wa.gov.au/safetyinformation/pages/emergencykits.aspx



## **CYCLONE ADVICES**

The Bureau of Meteorology (BoM) issues the following Tropical Cyclone Advices:

- 1. Tropical Cyclone Watch; when gales are expected within 48 hours
- 2. Tropical Cyclone Warning; when gales are expected within 24 hours

These advices will also contain the following community Cyclone Alerts issued by the Department of Fire and Emergency Services.

#### **CYCLONE ALERTS**

The Department of Fire and Emergency Services (DFES) issues a series of cyclone alerts based on the information received from Bureau of Meteorology to warn our community of the approach of a cyclone.

There are four stages of community alerts issued for a cyclone: Blue, Yellow, Red and All Clear.



Image courtesy of the Department of Fire and Emergency Services 'Cyclone Smart' information guide

#### HOW WILL I KNOW A CYCLONE ALERT HAS BEEN ISSUED?

Once a Cyclone Alert has been issued by the Department of Fire and Emergency Services, it will be communicated through local radio, television, the Exmouth Police Station warning sign and the lighting towers at the SES building and the Shire Depot.

	BLUE ALERT - PRECAUTION A cyclone may produce gales within 48 hours. Start taking precautions NOW.
	YELLOW ALERT - ACTION There is a significant risk that destructive winds will occur and you should take action
	<b>RED ALERT</b> - SHELTER Destructive winds are likely to occur very soon and you should move immediately to shelter
0	ALL CLEAR - WITH CAUTION The wind and storm surge danger has passed, although ground hazards may still exist

Cyclone warning sign on the front of the Exmouth Police Station on Maidstone Crescent

Listen to the ABC radio (1188AM); this will be the main source of information. If you have the internet and can still use it, information is also posted on the Bureau of Meteorology website at <u>www.bom.gov.au</u>.

#### A CYCLONE ALERT HAS BEEN ISSUED - WHAT DO I DO?

The following pages provide a brief checklist of what you can do to better prepare yourself during the different alerts. Use the checklists as a guide only, and tick the boxes once the task has been completed so you know you are prepared.

# **Blue Alert - Get Ready**

#### A cyclone may produce gales within 24-48 hours. Start taking precautions NOW

- □ The community should commence taking precautions. A cyclone is in the region and may produce strong winds.
- □ Keep up to date with the development of the cyclone through radio, television or internet (www.bom.gov.au).
- □ Find out when shops and businesses will close, and when to collect your children from school.
- Secure or remove loose material and rubbish from around your home or work and take them to the tip. Be aware that the rubbish tip will be closing upon yellow alert to allow for the tip staff to prepare the rubbish tip and their own homes for the cyclone
- Organise your emergency kit including first aid kit, essential medications, torch, portable radio, spare batteries, food and water. Be aware that shops will be closing upon yellow alert
- □ Consider relocating people with special needs including people who are pregnant, elderly or have disabilities.
- □ Identify the strongest part of your house or the closest welfare centre.
- □ Fill your car with fuel.
- □ Charge your mobile phones and other electrical devices in case the power goes out
- □ Identify a safe place for your pet (welfare centres in Exmouth do not accept animals, except registered assistance animals).
- □ Ensure you have adequate tie down materials or anchor points for loose items.
- □ Organise a gas barbeque or portable stove to use outside in a dry, ventilated area, in case electricity is cut.
- □ Remind your family of cyclone procedures.

# Yellow Alert – Action

## There is a significant risk that destructive winds will occur

- □ The community should commence action in readiness for the cyclone's arrival because the cyclone has moved closer and there is a significant risk that destructive winds will develop.
- □ Continue to monitor radio, television or internet for information on the cyclone's progress, particularly any storm surge advice.
- □ Know where your family and pets are located. Consider sheltering pets early.
- □ Secure boats, caravans, trailers, garden sheds, rainwater tanks and LPG bottles to tie down points.
- □ Store or secure other loose items like outdoor furniture that is likely to be thrown about by destructive winds.
- Obtain cash as banking services may not be available after the cyclone passes.
- □ Put fuel in your vehicle and park it in a sheltered area with the handbrake on and in park or first gear.
- □ Ensure your emergency kit is complete and fill emergency containers with water.
- □ Make sure your neighbours have received this warning. If you are ready and they need help, give them a hand.
- □ Fasten all cyclone screens. Board up or heavily tape exposed windows. Close curtains and lock doors.
- Pack a relocation kit, including warm clothes. Place valuables, important papers and photos in waterproof bags to be taken with your emergency kit.
- □ Prepare to move quickly to the strongest part of your house or relocate to the nearest welfare centre if required.
- □ If you live in a low-lying coastal area and the cyclone is likely to create a storm surge, you may be advised to relocate now.
- □ Refer to your cyclone plan and **charge your mobile phones**
- □ Be aware that shops and rubbish tip will now be closing

# **Red Alert – Shelter**

# Destructive winds are likely to occur very soon. Move <u>immediately</u> to shelter and REMAIN INDOORS

- □ <u>Only</u> Emergency Services should be outside during Red Alert.
- □ Continually listen to your portable radio for announcements about the cyclone's progress. Follow the advice from DFES.
- □ Go to the strongest, safest part of your house or the welfare centre.
- □ Keep your emergency kit with you
- □ Ensure pets and animals are safely sheltered
- Park vehicles in the most sheltered position. Make sure they are in gear or park and handbrake applied.
- □ Disconnect electrical appliances and turn off the gas supply valves
- □ Stay away from doors and windows. Keep them all closed.
- □ If the building starts to break up protect yourself with a mattress, rugs or blankets and shelter under something strong such as a table or bench
- □ Remain indoors until you are given the 'all clear with caution' by the SES.

#### **BE AWARE OF THE EYE**

The circular 'eye' or centre of the cyclone often has clear skies and light winds. They are usually 40km wide but can vary from 10km to over 100km wide.

If the wind drops during the cyclone you may be in the 'eye'. Stay inside and listen to your radio. Do not go outside until you have been given the all clear.

# **All Clear with Caution**

# The cyclone danger has passed, but there may be hazards

Once the cyclone has passed, the SES and Police will begin to patrol the streets and assess the damage. When they feel it is safe, they will change the alert level to All Clear. At this time, it is safe to come out of your house, however:

- □ Keep listening to your radio for further announcements
- □ Only proceed outside with caution; check for hazards such as downed power lines, fallen trees and debris
- □ Check on your pets and see if your neighbours are all right
- If your property has sustained serious damage and you need help, call the SES on 132 500. For life threatening emergencies call 000.
- □ Begin cleaning up; stack debris where it can be easily collected but won't interfere with services (i.e. power, water).
- □ If you relocated from your home, wait for advice from authorities before you go back.

#### ACT RESPONSIBLY

It is recommended that residents act responsibly and refrain from drinking alcohol during cyclonic events in order to remain alert and to be able to function coherently if necessary.

You may be called upon to act in an emergency, not only to help your own family and friends but also your neighbours and other community members.

Excessive alcohol consumption can hinder emergency response attempts and could place you and others in the community at risk.

## WILL I NEED TO EVACUATE DURING A CYCLONE?

If you do not feel comfortable in sheltering in your home during a cyclone, you may consider sheltering elsewhere. Residents living in low lying areas susceptible to storm surge should make a decision to evacuate early before being trapped in by the rising waters. If you choose to evacuate, let the SES know where you will be sheltering in case your property is damaged during the cyclone.

If the time comes that you need to evacuate your home because of the severity of the cyclone and the path it is taking, you will be told by the Police or SES. They will instruct you on the best way to go about getting to a welfare centre. Don't forget:

- Wear good shoes (enclosed shoes, not thongs) and adequate clothing for protection
- Lock your house, switch off power/water/gas
- Take your emergency kit and mobile phone. Don't forget your battery powered portable radio and torch.
- If evacuating to the welfare centre, follow the instructions of the Police and SES. Remember, pets cannot be taken to the welfare centre
- If evacuating out of town, leave early



### EVACUATING BUT LEAVING YOUR PETS AT HOME

If you are evacuating to a Welfare Centre or friends place, and you are leaving your pets at home, follow this simple checklist as a guide only to keep your pets comfortable and safe whilst you are away:

- Put your pets in a room with no windows or only a small window and leave plenty of comfort toys and bedding.
- Keep dogs and cats in separate rooms, even if they are friends, cyclones can tend to make animals act differently to normal.



- Put down plenty of newspaper on the floor as your pets will need to go to the toilet.
- Ensure you leave plenty of food and water for your pets to last at least
  72 hours, and ensure the water is in a non-spill able container.

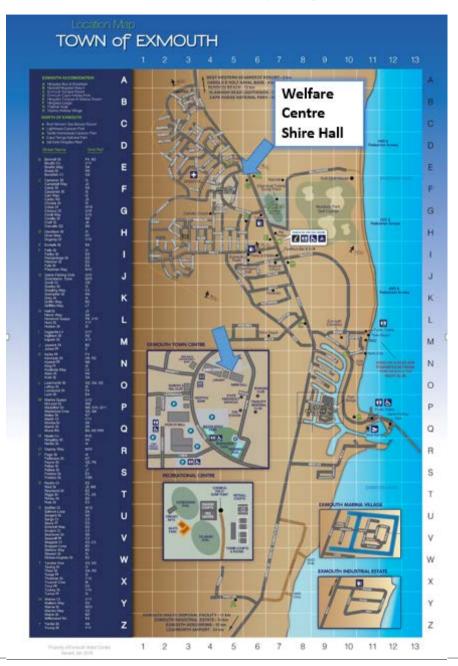
#### WHAT HAPPENS WHEN I GET TO THE WELFARE CENTRE?

When you arrive at the welfare centre you will be greeted by volunteers from the Red Cross who will take your details. The Department of Communities is responsible for the operation of the centre and they will be providing for basic needs. However, be aware they are of a basic standard and you may want to bring items, such as pillows, blankets etc., to make your stay more comfortable.

Information about cyclones and the welfare support services available will also be on hand. Communities and Red Cross officers will also be available to talk to about the services available to assist you in coping with cyclones.

#### WHERE IS THE WELFARE CENTRE?

We have formally recognised the Shire Hall on Maidstone Crescent, across the road from the Bowls Club as the primary Emergency Welfare Centre.



#### AFTER THE CYCLONE

Cyclones disrupt households and communities. Essential services such as power, water, sewage, gas and communications may not be working for a period of time. There could also be road and airport closures due to damaged sustained by the cyclone. These closures may remain in place for a period of time, until such time that repairs can be completed.

You might find after a cyclone or flood; you need emergency accommodation, welfare support services, money, food or water.

Getting back to normal as quickly as possible is the best thing you can do after an emergency.

There are simple steps you can take to help you and your family:

- Seek support from local welfare agencies. You can find them at the Welfare Centre or by calling the Department of Communities Carnarvon Officer on 9941 7222 if the Welfare Centre is closed.
- Contact your family and friends to talk about your experience.
  Encourage your family to talk about their experience with friends and neighbours.
- Rely on official information from the authorities.
- Become involved in community activities as soon as you can.
- Maintain a high standard of hygiene.
- Schools will open and children should return to their normal routine as soon as possible.
- If your home has sustained serious damage and you need help, call the SES on 132 500 for assistance. Or locally on 9949 1488
- If your home has been damaged and you need a place to stay, seek help from welfare agencies or use your personal camping equipment (tents, cooking gear, generators etc).

#### WHERE CAN I GET MORE INFORMATION?

You can access further general information about cyclones, cyclone preparation and recovery from the following places:

#### Bureau of Meteorology

www.bom.gov.au

twitter.com/BOM\_WA

youtube.com/user/BureauOfMeteorology

facebook.com/bureauofmeteorology

Department of Fire and Emergency Services

www.dfes.wa.gov.au

twitter.com/dfes\_wa

#### Emergency Management Australia

www.homeaffairs.gov.au

#### Shire of Exmouth - 9949 3000

www.exmouth.wa.gov.au

facebook.com/shireofexmouth/

Exmouth SES - 9949 1488

#### Department of Communities – 9941 7222

www.communities.wa.gov.au

#### Main Roads (Road Condition Report)

www.mainroads.wa.gov.au

#### IMPORTANT PHONE NUMBERS FOR ALL EMERGENCIES CALL 000

#### FOR SES ASSISTANCE DURING A CYCLONE PLEASE RING 132 500

Exmouth State Emergency Service 9949 1488 – general enquiries

**Exmouth Volunteer Fire and Rescue Service** 

9949 1664 - general enquiries

Police 9947 8700 - general enquiries

Ambulance 9949 2933 - general enquiries

Horizon Power (faults & emergencies) 13 23 51

Watercorp (faults & emergencies) 13 13 75

> Road Condition Reports 138 138

Centacare Family Services 9949 2225

> Exmouth Hospital 9949 3666

Learmonth Airport 9949 1326

Main Roads (Carnarvon) 9941 0777

> Shire of Exmouth 9949 3000

Shire of Exmouth- Depot 9949 3080

Exmouth Volunteer Marine Rescue 9949 2426 0418 183 416

Department of Communities (Carnarvon) 9941 7222

#### Your Emergency Contact Numbers (Family, Friends)



