



CaymanPrepared

What's Your Plan?

Hurricane Season | June 1 - Nov 30



Table of Contents

Useful Contacts	3
What to Do at the Start of Hurricane Season	5
Emergency Supplies	7
Securing Your Boat	8
Protecting Your Pets	9
Protecting Your Property	10
Choosing a Safe Shelter	15
What to Do When a Storm Threatens	17
What to Do After the Storm	19
Post-Hurricane Safety	20
Preventing Disease in the Aftermath	22

Useful Contacts

Emergency Services

Grand Cayman

Police 911 or 949-4222

Fire 911 or 949-2276

Hospital 911 or 949-8600

Divers Recompression Chamber 911

National Emergency Operations Centre 949-6555

(Only during activation of National Emergency Operations Centre)

Hazard Management Cayman Islands 945-4624

Mental Health Helpline 1-800-534-6463

Cayman Brac

Police 911 or 948-0331

Fire 911 or 948-1293

Hospital 911 or 948-2243

District Commissioner's Office 948-2222

Little Cayman

Police 911 or 948-0100

Fire 911 or 948-0011

Medical Clinic 911 or 948-0072

District Officer 948-1051

Utility Companies

Grand Cayman

Electricity:

Caribbean Utilities Co. 945-1CUC (1282) or 949-5200

Water:

Water Authority 949-2837 or 946-4537

Cayman Water Company 945-4277

Cayman Brac

Electricity 948-4224

Water Authority 948-1403

Livestock & Pet Help

Department of Agriculture Veterinary Service

947-3090 or 916-2218

Cayman Brac 948-0522 or 916-5144

Telecommunication Providers

FLOW 811 or 949-8450 | www.discoverflow.ky

Digicel 100 or 623-3445 *(from outside Cayman)*

www.digicelgroup.com

C3 333-3333 | www.c3.ky

Logic 745-5555 | www.logic.ky

Airlines

Cayman Airways *(Reservations)* 949-2311

Cayman Airways Cayman Brac 948-1211

Cayman Airways Little Cayman 948-0144

American Airlines 949-0666

Air Canada - Owen Roberts Airport 949-2309

Air Canada *(Reservations)* 1-888-247-2262

Island Air *(Reservations)* 949-5252

British Airways *(Owen Roberts Airport)* 945-6382

United 1-800-231-0856

Delta *(Reservations)* 1-800-221-1212 or 949-8700

Jet Blue 1-881-538-2583 or 946-7483

WestJet 1-800-204-0081

Southwest Airlines 1-800-435-9792

Government Websites

Cayman Islands Government www.gov.ky

CI Department of Tourism

www.caymanislands.ky

Hazard Management Cayman Islands

www.caymanprepared.gov.ky

News Media Websites

Cayman Compass www.caymancompass.com

Cayman News Service www.caymannewsservice.com

Radio Cayman www.radiocayman.gov.ky

Caymanian Times www.caymaniantimes.ky

Radio Stations

Government Operated

Radio Cayman One 89.9 *(Grand Cayman)*

(or 93.9 on Cayman Brac & Little Cayman)

Radio Cayman Two 105.3

(or 91.9 on Cayman Brac & Little Cayman)

Cayman Weather Radio 107.9

Private

Big Fish 95.5

Bobo 89.1

Cay Country 93.5

Cayrock 96.5

Gold FM 94.9

Hot 104.1

ICCI 101.1

Island FM 98.9

Kiss 106.1

Love FM 103.1

Magic 91.5

Praise 87.9

Rooster (101 - 101.9)

Star 92.7

X107.1

Z99 99.9

Television

CIGTV

Channel 28 (*Logic*)

Channel 3 (*C3*)

Channel 106 (*wireless cable*) or with an outdoor antenna

Consular Representatives

Austria

Pasadora Place, Smith Road, George Town

Martin Richter Austrian@consulate.ky

www.consulate.ky

Barbados

15 Brisbane Street

Juliette Gooding barcon2@gmail.com | huntewo@candw.ky

Brazil

Ogier, 89 Nexus Way, Camana Bay

Giorgio Subiotto giorgio.subiotto@ogier.com

Canada

Landmark Square, Suite 1F, 64 Earth Close

Yves Martel Cdncon.Cayman@candw.ky

France

115 West Bay Road (St. Matthews University)

Sebastien Guilbard frenchconsulatecayman@gmail.com

Germany

Embassy of the Federal Republic of Germany

10 Waterloo Rd., Kingston 10

1-876-631-7935 or 1-876-926-6728

After hours emergencies 1-876 819-4351

info@kingston.diplo.de

Honduras

Miguel Molina-Brown

miguelmbrown@yahoo.com

Jamaica

Dot Com Centre, # 342A Dorcy Drive (Industrial Park)

Elaine Harris

Jamaica@candw.ky | www.jaconsulatecayman.org

Philippines

Suite 219 Cannon Place, 294B North Sound Road

Arturo Ursua artursua@candw.ky

Spain

49 Mary Street, George Town

Garth Arch spainconsulate@candw.ky

Switzerland

#45 Market Street, Camana Bay

Markus Mueri cayman@honrep.ch

United States

Smith Road Centre, Unit 202B, Smith Road

caymanacs@state.gov

Immigration Matters

Passport Office

Sussex House, 128 Elgin Ave, George Town

949-8344

WORC 945-9672

Red Cross

949-6785

dm@redcross.org.ky | www.redcross.org.ky

What to Do at the Start of the Hurricane Season

BE INFORMED

- Learn all you can about hurricanes, how they affect the Cayman Islands and how to prepare.
- Learn about your area. Knowing how high above sea level it is, and its flooding history will give you an idea of how safe your area is. But remember: new buildings, roads and other construction could make flooding more likely even if it was not a problem in the past. You can find out the elevation of your area from the Lands and Survey Department at 949-7900. Inland areas which have had serious flooding in past storms include the West Bay peninsula, Red Bay, Prospect, Savannah, central George Town, areas around the North Sound, low lying areas of Cayman Brac, and Little Cayman.
- Learn the location of official public shelters and emergency medical centres – note the closest ones to you.

MAKE A PLAN

- Find a relative or friend you can stay with if your house isn't safe. Make sure the house you choose is well constructed and on high ground or has a foundation high enough to avoid too much water getting in.
- Decide where you will store your boat in an emergency and how to secure it.
- Make sure your home and property insurance is up-to-date. And that you understand what your coverage provides.

PREPARE

- Trim dead wood from trees and cut back overhanging branches.
- Check and repair loose gutters around the roof and downspouts.
- Check your hurricane shutters or plywood covers and the tools you need to install them. Practise installing them.
- If you do not have shutters for windows and doors, stock up on plywood and get it cut and labelled for each opening.
- If you can afford it, install properly constructed garage doors. Get wood or metal planks to reinforce the doors from the inside in the event a hurricane warning is issued. If you can't afford commercial garage doors, get plywood sheets to nail over the openings and wooden planks to reinforce the plywood. (See page 9 insert for more tips.)
- Check and repair loose or damaged roofing; install hurricane straps on roofs if they do not already have them.
- Stock up on emergency supplies. Begin collecting enough non-perishable food, water, first aid and other survival supplies to last each person about a week. A good idea is to buy the supplies a little at a time, picking up some extras with each trip to the supermarket.
- Don't forget any prescription medication your family may need and special items for the young and elderly.
- Keep your vehicle gas tank above half at all times during hurricane season.
- Inspect your cistern and get it cleaned if necessary.
- Have your cesspool emptied.
- Take pictures of your house (*inside and out*) and of furniture and equipment for insurance claims. Secure these in a safe place, in an airtight/waterproof container.

What to Expect from Different Storm Categories

Storm experts classify storms by their wind speed and have developed the chart below to show the type of damage that different storms can produce. It is important to know, however, that every system is different and behaves in its own way. Also the 'category' measures wind speed only and this often has very little bearing on the height of the surge which is the primary threat to life and property. The factors that determine how much damage a hurricane causes include:

- the wind speed.
- the amount of rainfall.
- whether the hurricane generates tornadoes.
- how fast or slowly the system is travelling, and how compact or spread out the system is.

The amount of damage received also depends on how well individuals and the country as a whole have prepared.

Category 1

Very dangerous winds will produce some damage: Well-constructed frame homes could have damage to roof, shingles, vinyl siding and gutters. Large branches of trees will snap and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.

Winds: 74-95 mph | 64-82 kt | 119-153 km/h



Category 2

Extremely dangerous winds will cause extensive damage: Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.

Winds: 96-110 mph | 83-95 kt | 154-177 km/h



Category 3

Devastating damage will occur: Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.

Winds: 111-129 mph | 96-112 kt | 178-208 km/h



Category 4

Catastrophic damage will occur: Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

Winds: 130-156 mph | 113-136 kt | 209-251 km/h



Category 5

Catastrophic damage will occur: A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

Winds: 157 mph or higher | 137 kt or higher | 252 km/h or higher



Know the Dangers of Storms

The destructive force of tropical storms and hurricanes comes from four areas: **strong winds, heavy rains, crashing waves and storm surge.**

When most people think of hurricanes, they conjure up pictures of the **wind**. They can also envision the heavy **rain**, which can cause streets, yards, and, in some cases, the insides of buildings to flood.

What many people do not think of, especially if they are not from the Caribbean or have never experienced a hurricane before, are the **dangers of the sea**: the high, crashing waves and rising sea level (*storm surge*) that cause sea water to come inland and combine with the rain to produce sudden, severe, even life-threatening flooding.

A storm surge is a rise in the level of the sea. It occurs as storm winds push water forward. As the storm nears land, the water builds up to several feet above normal sea level, add to this the waves, which ride on top of the already high seas. These waves, themselves several feet high, can crash hundreds of yards inland in a severe storm, battering structures by their own force and the force of rocks and other objects in them. These often destroy and pull out to sea everything in their path, including structures tens of feet above normal sea level.

As the Cayman Islands are low-lying (*particularly Grand Cayman and Little Cayman*), small and narrow, they are vulnerable to storm surge and to dangerous wave action. In any case, severe flooding from rain, waves and/or surges can affect any area of the islands, depending on the strength of the particular storm, the path it is travelling, and how close its centre comes to land.

Structures on or near the waterfront are always the most vulnerable (*all coastal and canal-front areas, including land bordering the North Sound*). So are the narrowest sections of land: Little Cayman; the western end of Cayman Brac; and, on Grand Cayman, Prospect to West Bay. It is important to know however, that any structure, anywhere in the islands that is not built or reinforced to hurricane-resistance standards is at risk.

Emergency Supplies

Nobody knows just how much damage a storm will cause until it is over. Be prepared for the worst by putting together the following supplies, which you will need during and after the storm.

Tip: Collect your supplies a little at a time from the start of the season. This makes them more affordable.

■ Drinking Water

Minimum of one gallon per person for 3-5 days. Use pre-bottled water or keep clean containers with tight-fitting lids. Once you fill them, seal tightly, use a permanent marker to write 'drinking water' and the date; store in a cool, dark place. Also ensure you have enough water for your pet(s).

■ Non-perishable Food & Beverages

At least 3-5 days supply for each person:

- Buy items in cans, plastic or other unbreakable, waterproof containers.
- If items have paper labels, use a permanent marker to write the name of the item and expiration date directly on the container, as the label may get wet and fall off.
- Some items do not keep long once they are opened. Buy sizes which you can finish the same day opened.
- Include some high-energy and comfort foods such as granola bars, chocolate, candy, etc.

■ Special Needs Items

For the sick or disabled, such as:

- Extra prescription medicine (*two-week supply. Ask your doctor or pharmacist for guidelines for storing these*).
- Special foods.
- Special equipment.

■ Baby & children's items

Food and liquid formula, diapers, wipes, snacks, a few favourite small toys or games, etc.

■ Cooking, heating equipment & fuel

Portable stove (*e.g. camp stove, mini propane/butane tanks*), "Sterno" for heating food, waterproof matches or lighters, oil and gasoline for generators.

■ Portable Cooler/Ice Chest

■ Disposable Utensils

Plastic cutlery, plates and cups.

■ Tools and materials

Including: Can opener (*non-electric*), sharp knife, scissors, duct tape, rope, hammer, nails, screws, screwdrivers, wrenches, pliers, tarp or heavy-duty plastic, work gloves.

■ Portable Radio

- If battery-powered, get extra batteries; consider a wind-up, or solar-powered, radio (*these do not need batteries*).
- Cell phone, car charger and/or extra battery.

■ Lighting

- Two flashlights for each person and 2 extra packets of batteries, or wind-up flashlight.
- Battery-operated lanterns, replacement bulbs and batteries.

Note: It is best to avoid using open flames such as candles or kerosene lamps for lighting as these carry a great risk of starting a fire. Flashlights provide the safest light.

■ Personal hygiene, sanitation & health aids

Toiletries, paper towels, toilet paper, insect repellent, hand sanitiser, first-aid kit, bleach (*pure, unscented*), water purification tablets, heavy-duty trash bags, containers for sewage - at least two 5-gallon buckets with tight-fitting covers. Line with plastic bags.

■ Miscellaneous

- Cash.
- Important documents.

■ Storing your supplies

Pack smaller items in waterproof containers and store on a shelf or counter top away from the floor in case of flooding. Tie bigger items down or store in a safe place where they won't float or blow away.



Grab-and-Go Survival Kit

Conditions may change suddenly in an emergency and you may have to leave at a moment's notice. When a hurricane threatens, get together a personal survival kit from your supplies or, better yet, prepare it beforehand. The kit is a bag or other portable container with your most important emergency items, which you can just grab if you have to go in a hurry. Each family member should have one.

It should contain:

- Drinking water for at least three days (*see guidelines on previous page*).
- Food and drink for at least three days - lightweight, compact, waterproof packaged, non-perishable items that don't need cooking, heating or refrigeration and which can be eaten from the container.
- Change of clothing and sturdy, protective shoes; rain gear, hat, sun glasses.
- Sleeping bag, mat or blanket.

In addition, the kit for each adult and each child old enough to carry them should contain:

- Personal identification and other important documents (*see box*).
- Portable radio, flashlight and extra batteries.
- Cell phone and charger/extra battery.
- Can opener, utility knife, utensils.



- Cash (*including coins*).
- Prescription medicine if necessary (*ask your doctor or pharmacist for guidelines for storing these*).
- Eyeglasses if used (*extra pair and/or a copy of the prescription*).
- Extra keys for house and vehicles.
- Special items for children, elderly or those with special needs.

Important Family Documents

Keep these records in a waterproof pouch in a convenient place known to all family members or store a copy of the documents in a cloud based storage. When a storm is threatening, place your pouch in your survival kit.

- Personal identification, Passports and travel visas (*or waivers*).
- Immigration records/permits.
- Other travel documents such as airline tickets.
- Emergency contact list and phone numbers.
- Bank and credit card account numbers.
- Insurance policies & papers (*household, auto and life*).
- Inventory of valuable household goods.
- Contracts, deeds, and will.
- Family records (*birth, marriage, death certificates and immunisation records*).

Store other valuables in a waterproof container on the highest level of your home to minimise the chance of them becoming soaked.

Securing Your Boat

When Securing Your Boat:

- Remove all trailers and small vessels out and away from the water.
- If your boat must remain in the water, please read through the advice that is available on the Cayman Prepared website.
- If your boat is on land, remove boat plugs or add weight to smaller boats by filling the boat up to half-way with water. Filling it all the way could cause damage.
- If radio equipment can be removed, take it out. Remove outboard motor and anything that could blow away.
- Store boats and trailers inside if possible.
- If boat must remain outdoors, lash both boat and trailer down with heavy rope or chains anchored to the ground and away from objects that could fall on them.
- Flatten the trailer tyres.
- Support the trailer axle and prevent the trailer from rolling by placing blocks against each wheel.
- Never venture out to sea if a small craft advisory, or storm warning alert is in force.

Protecting Your Pets

What About Pets?

Without proper planning pets are likely to get injured, lost, or worse. Even if you decide to stay home, authorities may issue an evacuation order requiring you to leave at short notice. There are currently two emergency shelters which accept pets (*dogs and cats only*) and space is limited. Details of what you have to bring are on the Caymanprepared website <http://www.caymanprepared.ky/portal/page/portal/hmchome/shelter/list>.



Have a safe place to take them in case you have to leave home:

- Ask friends, relatives, or others whether they could shelter your animals. If you have more than one pet, they may be more comfortable if kept together, but be prepared to house them separately.
- Ask if your workplace will allow you to shelter there with your pets.
- Some hotels will accept you with your pet. Call around to find out their policies and any restrictions on number, size, and species. Ask if "no pet" policies could be waived in an emergency.
- Keep a list of pet-friendly places, including phone numbers, with other disaster information and supplies. If you have notice of an impending disaster, call ahead for reservations.
- If you decide to leave the island before the storm, the best thing to do is to evacuate your pets with you. Call the Agriculture Department at 947-3090 well in advance to find out the requirements for taking your animal out of the country and for bringing it back in. Also, be sure to find out the requirements of the country to which you want to take the pet.

Assemble a portable pet supplies kit:

Like you, your pet will need essential supplies during and after the storm. Keep items in sturdy containers that can be carried easily (*duffle bags, covered trash containers, etc.*). **Include:**

- A first aid kit, including any medicines your pet is taking and their medical records.
- Sturdy leashes, harnesses, and/or carriers for transportation.
- Current photos of your pets in case they get lost.
- Food, potable water, bowls, cat litter and pan, and a manual can opener.
- Information on feeding times, medical conditions, behaviour problems, and the name and number of your veterinarian in case you have to foster or board your pets.
- Pet beds and toys, if easily transportable.

What to do as the storm approaches:

- Call to confirm hotel reservations or shelter arrangements for you and your pets.
- Check that your pet disaster kit is ready to go at a moment's notice.
- Bring pets into the house to avoid searching for them if you have to leave.
- Dogs and cats must wear securely fastened collars with up-to-date identification. Write down your contact details on a temporary tag or put adhesive tape on the back of your pet's ID tag, adding information with an indelible pen.

If you must leave your pet at home:

- Prepare an area that is easily cleaned, such as a bathroom or utility room. Do not leave the animal near a window. Leave several days supply of dry food and water in non-spillable containers.
- If you are off island when a storm approaches, ask a trusted

neighbour or friend to take care of your pets. It is best to arrange this before you travel in case a storm comes while you are away. This person should be comfortable with your pets, know where your animals are likely to be, know where your pet disaster supplies kit is kept, and have a key to your home.

Other considerations:

- Transporting pets: Animals react differently under stress. Outside your home and in the car, keep dogs securely leashed. Transport cats in pet carriers. Don't leave animals unattended anywhere they can run off. The most trustworthy pets may panic, hide, try to escape, or even bite or scratch. When you return home, give your pets time to settle back into their routines. Call your veterinarian if any behaviour problems last for more than a few days.
- Transport birds in a secure travel cage or carrier. Provide a few slices of fresh fruits and vegetables with high water content. Have a photo for identification and leg bands. If the carrier does not have a perch, line it with paper towels and change them frequently. Do not let the birds out of the cage or carrier.
- Small mammals (*hamsters, gerbils, etc.*) should be transported in secure carriers suitable for maintaining the animals while sheltered. Take bedding materials, food bowls, and water bottles.
- Horses and other livestock have a better chance of survival when turned out in clean pastures with native vegetation, but not in flood prone areas. Contact the Department of Agriculture for more information on sheltering farm animals.

Microchips to the rescue!

All dog owners in the Cayman Islands are required to have their dogs microchipped. The chip is a tiny and harmless electronic device inserted by a veterinarian just under the dog's skin. It contains information to identify the dog and its owner and gives you the best chance of being reunited swiftly with your pet if it gets lost during a storm.

Protecting Your Property

Take Care of Your Homes Outer Shell

When the outer shell of a house is damaged, it becomes prone to sudden collapse. For example, if a door facing the wind blows in, the full force of the storm will hit the interior. Needing somewhere to go, the wind will then rip out windows, doors, walls or the roof. Even a small breach such as a roof tile bursting through a window can have the same effect. Therefore, pay special attention to all exterior openings.

Storms often get a finger into the house through the roof if it not secure. The wind begins to peel away the roofing material at the gable ends or eaves, exposing the edges of the roof sheathing. The sheathing then becomes damaged and the ceiling gets soaked and collapses, allowing wind and water inside. While the structure may survive, the interior and its contents will likely be destroyed.

For homes already built:

- Check roof structure to see if it is reinforced with hurricane straps. Hurricane straps anchor the wood frame of the roof to the walls, helping to keep the roof on during high winds. If you have a gable-end roof, make sure it is properly braced at the ends. Attach 2x4 or 2x6 planks to the gable end, at right angles to the truss system. Screws, not nails, should be used to attach the braces since screws are harder to pull loose. Consider having an experienced builder or engineer check your roof and do the necessary repairs and installing of hurricane straps. It is worth the investment. If you live in rented accommodation, ask your landlord about this.
- Replace roof covering that is cracked, rusted, loose or brittle. If you are replacing roof covering, consider metal roofing or asphalt shingles instead of roof tiles. Standing seam roofs do well if they are crimped together, using the manufacturer's recommended machines. Correctly attached asphalt shingles will also perform well (*See box information on installing asphalt shingles*). The roof will peel away if it is not properly installed. Roof tiles can cause a lot of damage when they go air-borne and need very careful installation.
- When replacing or repairing corrugated zinc roof, 1x4 battens should be spaced at 16 inches on center and fixed to each rafter with two 12-gauge 2 ¾ inch galvanized wood screws. Battens should be doubled near the ridge and eaves. Nail the sheets with 10 penny ring shank nails at six inches on centres or eight-gauge galvanized screws at six inches on centres. Nails or screws should have a rubber gasket to seal the roof.
- New corrugated zinc roof should be placed over solid plywood sheathing with a layer of 30# felt or other approved water barrier. Sheets should be fastened with 10 penny ring shank nails at six inches on centres or eight-gauge galvanized screws at six inches on centres. Nails or screws should have a rubber gasket to seal the roof.
- Check double entry doors. Secure the inactive door to the header and thresholds by adding reinforcing pins to the top and bottom of the door as well as by adding heavier hinges and more secure locks.
- Make sure door and window frames are securely fastened to their rough framing and check that the header is held in the wall with steel strapping and not just a couple of nails.
- Double garage doors are another weak point because they tend to wobble as high winds blow. These doors can pull out of their tracks or collapse from the wind pressure. Install bracing horizontally across the door. This can be done anytime as the bracing can remain on the doors year round. Use six to eight 2x4s or steel supports for this.
- Shutters are the most effective protection for all windows, French, and sliding doors. The best option is to install shutters bolted to the walls as strong winds tend to rip off plywood, roll-down, and louvered aluminium shutters. However, homemade plywood shutters, if installed properly, can offer a high level of protection. (*See information on plywood and commercial shutters*) Remember to cover any vents on the gable ends of your roof if you have a gable-end roof.

Building a home? Now's the time to make it hurricane-proof.

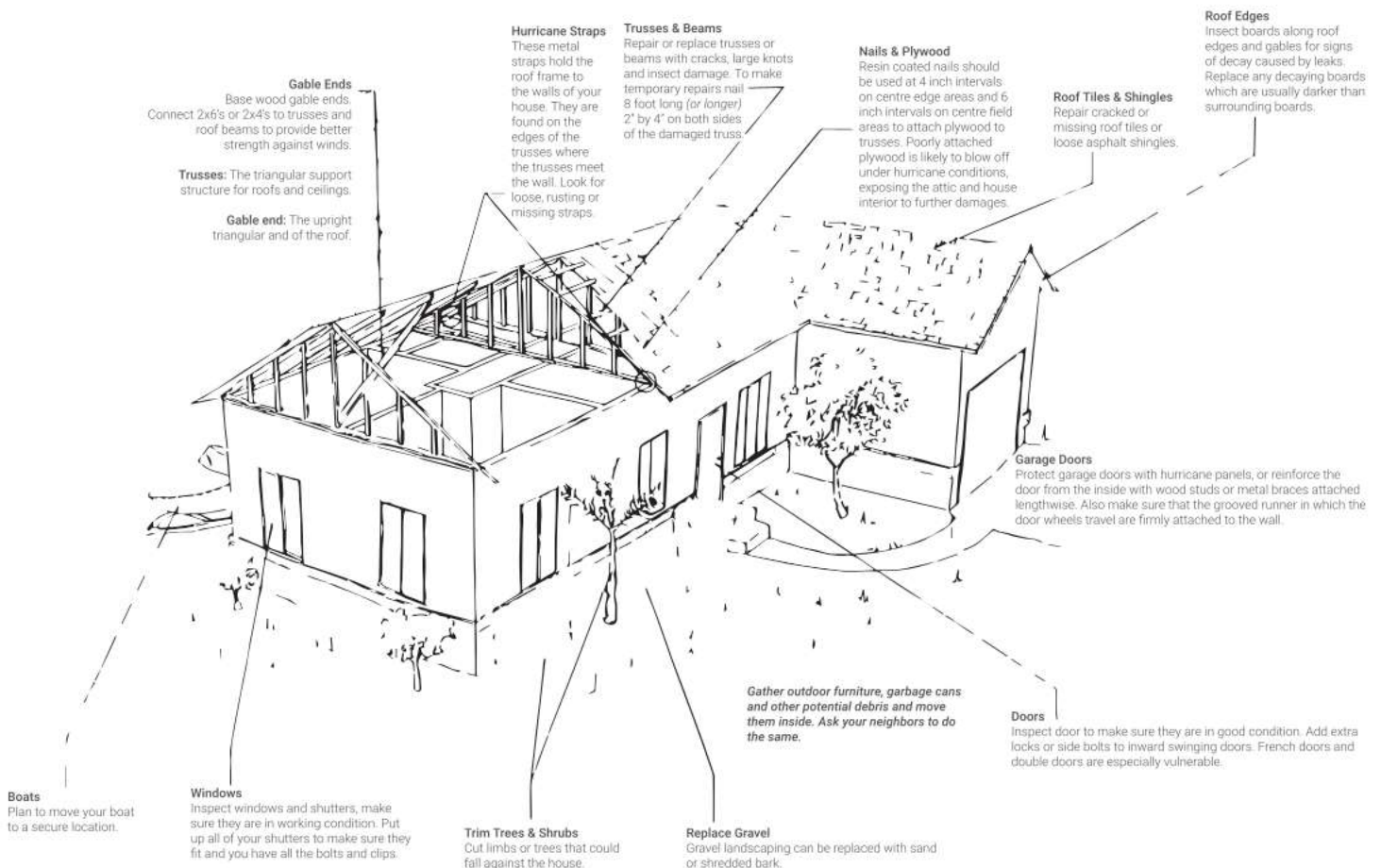
- Properly constructed hip roofs can withstand hurricane winds better than gable end roofs. This is because all surfaces of the hip roof are sloping, allowing wind to flow around them, whereas gable ends are vertical, which allows the force of the wind to constantly build up against them. If you are building a gable end roof it is crucial to make sure that it is properly braced. (*See information on bracing gable-ends under "For homes already built"*)
- Make sure your builder installs hurricane straps wherever roof beams join each other or join the walls.
- Ensure that exterior doors open outwards. It is harder for them to blow in.
- For windows, French or sliding doors, choose an impact-resistant glazing such as laminated glass or install hurricane-rated shutters.
- When installing a garage door, buy a specially reinforced one and have it installed by a professional.

Terms to Know:

- **Header:** The crosswise piece at the top of the door frame
- **Threshold:** A strip of wood or other material at the bottom of the doorway
- **Reinforcing pin:** Pointed metal fasteners that will keep door in place
- **Rough framing:** The grid that holds the window/door in the wall
- **Steel strapping:** Narrow steel strips used to secure door and window headers
- **Bracing:** Reinforcing
- **2x4s:** Wood in lengths that are 4 in. wide and 2 in. thick. It is the standard material for buildings of wood-frame construction.
- **French doors** (also called *French windows*): Double doors made of glass panels, usually opening onto a covered patio or verandah.
- **Louvered shutters:** Shutters with horizontal slats angled to admit air and light but not rain
- **Masonry anchors:** The bits used to secure screws in concrete walls
- **Washers:** A small disk or ring used to keep a screw or bolt secure or prevent leakage at a joint
- **Glazing:** Glass that has been installed in windows or doors
- **Impact-resistant glazing:** Reinforced glass manufactured to withstand the impact of flying debris
- **Laminated glass:** Glass coated with plastic or other substance to make it more impact-resistant
- **Hurricane straps:** Metal strips which are bent over the truss beams and embedded in the concrete tie beam/belt beam. They anchor the roof to the house and the trusses to the wall helping to keep the roof on in high winds.

Storm-proofing your home

Here are some of the areas you should pay special attention to:



Shuttering

Covering your windows and doors properly is one of the most important things to do when a storm is coming. The aim is to protect your house from wind and prevent flying objects crashing through the windows/doors into the building which would allow rainwater into your home, and increase the chance of your roof blowing off.

You can buy either ready made shutters or plywood sheets. Remember though: no covering will compensate for a poorly built house, or an unprotected garage.

Effective Plywood Shutters

- Plywood should be at least 5/8 of an inch thick and must be properly attached to the building in order to work. Even the best-designed shutter will fail in strong winds if not installed properly.
- For windows, use plywood that is at least 5/8 of an inch thick. Large openings such as glass doors need at least 3/4-inch thick plywood. Additional stiffeners may be required depending on span.
- Mark each sheet so that you will know what opening it is for.
- Practise installing the sheets at the start of the hurricane season.
- Store the sheets with the nails, screws or other hardware you will need to install them.

Caution! Some people cut the plywood and attach it in the inset of the window, against the window frame. However, in many homes, the window frame itself is not attached firmly enough to the surrounding wall and in high winds the added force of the plywood against the window frame could cause the entire window to blow out, frame and all!

You shouldn't rely on the window frame to hold the plywood in place.

Installing Plywood Covering

- Use 1/4 inch Tap Cons 2.5 to 3 inches in length in masonry and concrete to fasten the plywood to the wall around the window.
- The nails should be inserted at six inch intervals all around the edge of the plywood sheet.
- On large openings, where a window or door is larger than the plywood sheet, use two sheets side by side. Nail a 2x4 or 2x6 plank of lumber across the line where the two pieces join. This strengthens the junction.
- Sliding glass patio doors: If there is no wall below the sliding doors to nail the bottom edge of the plywood to, secure that section by a length of timber (2x4 or 2x6) nailed across the bottom edge of the plywood and secured to the floor.
- Garage doors: Many garage doors cannot withstand hurricane winds unless they are strengthened. Brace them from the inside with 2x4 or 2x6 wooden beams, running lengthwise.

Remember! When a hurricane warning is issued stores will quickly run out of plywood supplies. If you do not prepare beforehand, you might not be able to get any plywood on the day before a hurricane strike.

Commercial Shutters

Listed below are the most popular types of commercial shutters with the advantages and disadvantages of each.

Storm Panels

These steel or aluminum shutters attach to the walls around windows and doors on bolts or tracks. The biggest problem with storm panels is that homeowners often don't check them when they buy a home. Many discover later that panels are missing or were cut improperly, or are too heavy to install themselves.

Pros

- Most inexpensive of the permanent shutter systems.
- Removable, so they don't change the look of the house when not in use.
- Strong, and can provide excellent protection for both doors and windows.

Cons

- Require storage, but usually stack together tightly and take up little space.
- Can be difficult to handle; hanging can require more than one person.
- Sometimes don't line up properly.
- Have sharp edges.

Average storm preparation time: 15 minutes per window depending on the style.

Roll-Down Shutters

These shutters attach above the window. They roll up and store in an enclosed box when not in use.

Pros

- They are permanently affixed above the windows and don't require any extra storage space.
- They can easily be made storm-ready by one person.
- They offer some of the best protection, and make an excellent theft deterrent.

Average storm preparation time: *Minimum - probably the easiest shutter to operate.*

Cons

- They are the most expensive of the popular shutter systems.
- Push-button-operated, roll-down shutters require a battery backup system so that the shutters can be lowered and raised during power outages.

Accordion Shutters

These one or two-piece shutters are housed beside the windows or doors when not in use.

Pros

- They are permanently affixed beside the windows and don't require any extra storage space.
- They can easily be made storm-ready by one person.
- Some models can be locked with a key and may be used as a theft deterrent.

Average storm preparation time: *15-30 minutes for an entire house.*

Cons

- These shutters can look bulky and out-of-place on some houses. Consider the aesthetics before having them installed.
- They glide on wheels, and have the potential to break more easily than some of the other systems.

Colonial Shutters

These are two-piece louvered shutters that attach to the wall beside each window.

Pros

- They are permanently affixed beside the windows and don't require any extra storage space.
- They can easily be made storm-ready by one person.
- Colonials are decorative; they can beautify as well as protect your home.

Average storm preparation time: *15-30 minutes for an entire house.*

Cons

- Some types of colonials require a storm bar or centre rod to lock the shutters in place. This can increase installation time.
- They can't be used to protect doors, and must be combined with another shutter system to ensure complete home protection.

Bahama Shutters

These one-piece louvered shutters attach directly above the windows and prop open to provide shade for the window.

Pros

- They are permanently affixed above the windows and don't require any extra storage space.
- They can easily be made storm-ready by one person.
- They provide permanent shade and privacy, even in the open position.

Average storm preparation time: *15-30 minutes for an entire house.*

Cons

- These shutters have traditionally been weaker than other systems, but the newest models protect well.
- Some people complain they block too much light.
- Their design limits their use. They can't be used to protect doors.

Other Types of Commercial Coverings

- Hurricane-proof glass. This has a special film attached to the glass' surface, or a special material bonded between two panes of glass to make one thick pane. The glass is then mounted into the window or door frame.
- Storm shields – These resemble thick mesh.

Are you Under Insured?

When Hurricane Ivan hit the Cayman Islands in 2004, a quarter of the buildings in Grand Cayman were left uninhabitable and over 80% were subject to some form of damage. Insurance or what is known as a 'risk transfer mechanism' is an important consideration for many residents and businesses.

Here are some tips and things to consider:

- Check that you have a policy in place—make a note of the policy number and include emergency contacts for the insurance company. Add these details to your other essential paperwork.
- Check the renewal date, and the level and type of cover in place when last renewed. Cover is generally recommended to be based on re-instatement, however advice should be obtained to see if alternative types of cover are available or more suitable for your property. If your policy renewal is during the hurricane season, ensure the premium is paid in good time, in advance of the renewal date.
- If you do not have your property insured, some insurance companies will not accept new applications for cover during the hurricane season, and most will not accept new applications once a storm is named, and it is almost certain they won't write a policy for you if a hurricane is heading directly for the Cayman Islands.
- Check the policy limitations and excess/deductible sums. Some policies will have a maximum amount of cover in terms of time if temporary accommodation and storage is required, others may have a maximum amount of cover in terms of money if temporary accommodation and storage is required. Ensure what cover is included for these items in the policy that you have—or plan to take out—and focus on what you may need in the event of a claim.
- Check what the policy covers and does not cover. Some policies may exclude or limit flood cover and some may exclude cover from falling trees or flying coconuts! It is important to know what is covered and not covered, to ensure that you have the cover that you actually need. Also, don't just focus on the cost of the premium but also look at the things like the amount of the deductible. Sometimes it pays to shop around when looking for insurance coverage!
- Check when the property was last inspected and re-valued. Do not rely on indexation that your insurance company may apply at the time of your policy renewal as being reliable. Materials and labour prices in the Cayman Islands have increased significantly in recent years, and the cover that you need must relate the likely current cost of repair or replacement in the event of a claim.
- Check whether the property is compliant with current Planning and Building Control standards. Over the years, standards have changed with some quite recent changes affecting coastal setbacks. Current Planning and Building Control standards may mean that the property cannot be rebuilt in its current form, in the event of a peril. As part of any review of insurance cover required it is also beneficial to get the appraiser to check compliance with Planning and Building Control. If the property is not Planning/Building Control compliant, further advice should be obtained from insurers regarding the type of cover to be applied. There are other types of cover that can be considered if Re-Instatement is not likely to be permitted. In a situation such as this, case specific advice will be needed.
- As a general rule, the Insurance value of your home should be re-assessed at intervals of no more than 3 years, (*This is the Royal Institution of Chartered Surveyors (RICS) recommended standard*) however the recent increases in material and labour prices suggest that more frequent reviews are almost certainly needed—and a review is always needed if your house has been altered or extended in the current year of the current policy. Your current insurer will not be aware of alterations unless directly advised—and the cover required on renewal will not be correct if alterations are not taken into consideration.
- Beware of Under-Insurance. There are serious consequences to being under insured. Under Insurance is the term used to describe a situation where you don't have a high enough level of insurance cover in place. Many insurance companies have clauses in their contracts that will limit the amount that they will pay out when a claim is made if the cover in place is found to be inadequate (*underinsured*). This can vary from company to company, but almost all will adjust any payout if the cover in place is found to be 15% or more below what is really required.



Choosing a Safe Shelter

It is up to you to decide on the best place for your family and yourself during a storm. Public shelters are provided in each district but space is limited and is meant for people whose homes cannot be made safe and who can't find another safe place to stay.

If your home is hurricane-proof and is in a safe location it is probably the best place to be during a storm. The next best place is with family or friends whose house is well-constructed and in a safe location. However, if you have no other alternative or are not sure, do not hesitate to go to a public shelter. Here are some tips to help you decide.

Assess Your House at the Start of the Hurricane Season

If you can, get a structural engineer to do a proper assessment.

- Can the walls stand up to strong hurricane winds?
- Is there adequate protection for all windows, doors, and patio openings, skylights and roof vents (*commercial shutters, properly cut and secured plywood sheets or hurricane-rated glass; sturdy locks and hinges; tight, water proof seals*)? Are garage doors reinforced with wood or metal beams?
- Are the roof trusses tied with hurricane straps bolted to the walls? Are they braced with proper supports and properly nailed down? Is the roof cover waterproof and properly secured?
- Is your building on high ground or is the floor several feet higher than the surrounding yard? Are the windows and doors water-tight and do they swing outwards? Do the pipes to the septic tank have backflow valves/float plugs, or is there a second floor to which you can go if waters begin to rise?
- Can you make the necessary renovations in time? If you cannot, make plans to stay with someone in a safer location or plan to go to a shelter.

Assess Your Location

- Is your house on or near the beach/ironshore?
- Is it in an area with a lot of weak, unprotected buildings or loose structures such as trailers, equipment, derelict vehicles or other items which could become missiles or battering rams in a hurricane?
- Has there been serious flooding in your area in the past? (*If you are new to the area, ask other residents. You can also get an elevation map from the Lands and Survey Dept. This will show how many feet above (or below) sea level your area is.*)
- If you are in an unsafe location, make plans to stay with someone in a safer location or to go to a shelter.

Note: Most areas of Cayman will get some flooding. Don't worry about the yard flooding, or even some water seeping inside. If you live in an area where rising water could pose a threat to life, plan to stay with someone in a safer location or to go to a shelter.

Assess Your Health

- Are you or a family member elderly, bedridden, severely disabled?
- Do any of you have a chronic medical condition, or are you in the last three months of pregnancy? If so, go to an Emergency Medical Centre.

Know Your Flood Risk

Storms can bring several inches of rainfall and if this rain has nowhere to run off it will cause flooding. A storm surge can then add several more feet of water. Find out how high above sea level your property is by contacting the Lands and Survey Department at 244-3420. Measure how high above the ground outside the threshold of your door is. Add these two measurements together to see how high above normal sea level the floor of your dwelling is. Suppose your area is two feet above normal sea level and the floor of your house is two feet above that. It means you are four feet above normal sea level. If there is a storm surge of six feet, you could get two feet of water inside your house.

If You Decide to Stay

If you're satisfied your house and location are safe and you decide to stay:

- Make sure you have adequate supplies. (*See emergency supplies checklist on page 6*)
- Know that you may still be required to leave if authorities feel an area is at great risk. (*See Evacuation Order on page 15*)
- If you need help at any time, contact 911 or the Emergency Operations Centre at 949-6555.

If You Decide to Leave

If you consider you will be at risk, decide on a plan for you and your family in advance:

- If you have family or friends in hurricane resistant homes on high ground, make arrangements, in advance, to stay with them.
- If your work place is safe and secure, consider getting permission to shelter there.
- Know which shelter is nearest you and what is the quickest way (*and the next best alternative route*) to get there.

N.B. If you are leaving home to stay with someone else, let someone know, preferably your district Police Station, your neighbour, and a friend or relative outside the area.

Public Shelters

A number of government buildings in each district are chosen and equipped to serve as public shelters. HMCI in partnership with Public Works Department (PWD) chooses these based on the buildings' ability to withstand hurricane conditions and their height above sea level. As newer, purpose-built centres are constructed HMCI and PWD phases out older shelters that are not as ideal.

What to Take to the Shelter

- Three to five days supply of water and food which does not require cooking.
- Special items such as medication, baby food and diapers, female sanitary supplies, etc.
- If you have small children, do not forget to bring at least one of their favourite foods (*e.g., breakfast cereal*) and something to keep them occupied.
- A blanket and pillow.
- A working flashlight and extra batteries.
- A change of clothing.

Additional information about what to bring to the shelter including a list of supplies needed for the Pet Shelters is available on www.caymanprepared.ky.

DO NOT TAKE

- Alcohol, cooking equipment or weapons. Items not allowed in the shelter will be confiscated and the owners asked to sign them over. The items will be returned to the owners when they are leaving the shelter.
- Pets (*cats & dogs*) can be taken to John Gray High School Gymnasium or Clifton Hunter High School Gymnasium as they are the designated pet friendly shelters.

Who is in Charge?

The management team is in charge of the shelter. They are volunteers that have been trained for this function. They are supported by the RCIPS, Cayman Islands Regiment, and Cayman Islands Red Cross.

REMEMBER: Many people have to share the available space at a shelter. Be prepared for some amount of discomfort. Safety is the main concern, so follow shelter wardens' instructions.

Evacuation Order

In cases where an area is at special risk, Hazard Management Cayman Islands in consultation with the Governor, will issue an evacuation order. This means that all residents in that area should leave at once and go to a designated shelter or other safe location outside the evacuation area. Listen out for these orders as they could come at any time before or during the storm.

Announcements will be given by radio and TV and by police and firemen, who will come around the community with loud speakers. If you refuse to leave when authorities recommend evacuation you will have to sign a release form. This means the authorities cannot be held responsible for you.

If you are ordered to evacuate, do so immediately! Never ignore an evacuation order. All storms are unpredictable and can be life-threatening. Wind, debris and rising water could leave you suddenly trapped at a time when help can not reach you.

Take only essential items with you

- If you have pets, ensure they are also evacuated with you. Do not leave pets alone indoors.
- If you have time, turn off the gas, electricity, and water if you have not already done so; unplug all appliances.
- Have each family member take their survival kit (*see box*)
- When you leave home, if you are driving, follow any instructions by authorities regarding passable routes—others may be blocked. Expect heavy traffic.

What to Do When a Storm Threatens

ALERT | Take Precautions



TROPICAL STORM ALERT

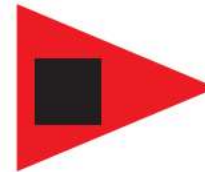


HURRICANE ALERT

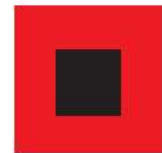
Tropical Storm/Hurricane could strike within 72 hours

- Check emergency supplies and items for securing your home. Stock up.
- Assess your home and make necessary reinforcements or repairs to roofs or outdoor structures.
- Remove overhanging limbs and fruit from trees.
- Decide whether you need to stay with friends or relatives or go to a shelter.
- Find out which shelter is closest to you and decide how you will get there if you need to.
- Check that your generator is in good working order, and ensure you have oil and extra gasoline.
- Make necessary preparations for your pet(s) in case you have to go to a shelter.
- Fill vehicles with gasoline and withdraw some cash from the bank.
- Stay tuned to radio stations and local television for the latest official notices from Hazard Management Cayman Islands and the Cayman Islands National Weather Service.

WATCH | Batten Down



TROPICAL STORM WATCH



HURRICANE WATCH

Tropical Storm/Hurricane could strike within 48 hours

Before the Storm Strikes

Outside

- Put up shutters or board up windows, glass doors and skylights.
- Bring in or secure everything that could be blown away, such as outdoor furniture, potted plants, clothes racks, garden tools, garbage pans, etc.
- Remove antennas and satellite dishes to prevent damage or loss.

Inside

- Sterilise bathtub, pans, jugs and bottles and fill with water.
- Turn refrigerator and freezer to the coldest setting and open as little as possible. Remember to return to original setting after the storm.
- Raise furniture, appliances and other valuables off the floor. Cover and secure with plastic sheets.
- Close curtains and blinds to minimise the danger of flying glass if windows are broken.
- Put your food and other emergency supplies in plastic bags and containers so they won't get wet.
- Turn off outside gas cylinders and disconnect gas pipes.
- Bring pets indoors. If you have to leave home and cannot take your pet, make alternative arrangements for your pet(s). Do not leave them alone.
- Shelters will usually open during this phase. If you intend to go to a shelter, listen for announcements that the one nearest you is open. Before you leave, turn off the main power and fuel supply and take the items you have prepared.

- If you intend to stay with relatives or friends, go now.
- Park vehicles inside the garage or on higher ground if possible, to reduce the likelihood of your vehicle being damaged.
- If you are remaining at home, go indoors, secure and brace external doors. You can brace an inward-swinging door by wedging a chair with the back against the door knob.
- Use your telephone for emergencies only. You will need the battery to last!
- Stay tuned to local media for official notices and instructions from Hazard Management Cayman Islands and the Cayman Islands National Weather Service.
- Stay indoors, but be ready to evacuate to a shelter or other location if your home is damaged, or if you are instructed to do so by emergency personnel.

WARNING | Take Refuge

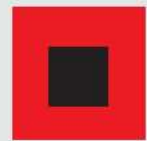
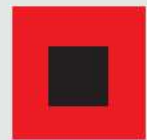
Tropical Storm/Hurricane could strike within 36 hours

A Warning remains in effect until the storm has passed or is no longer a threat.

- Stay calm and listen to official updates over the radio.
- Continue making the necessary preparations if you did not complete everything during the Alert or Watch phase.
- Go to a nearby Shelter now as they will be open.



TROPICAL STORM WARNING



HURRICANE WARNING

During the Storm

- CUC will usually turn off the electricity just before the storm approaches to protect their equipment. However, if the electricity is still on and water begins to blow into the house and settle on the floors, turn off the main breaker switch to avoid electrical accidents. **However, before you touch the breaker, make sure you are not standing in water and are wearing rubber-soled shoes.**
- Close all inside doors. If the wind gets inside, closed doors will help stop it from entering other rooms. You can also brace inward-swinging doors by wedging a chair-back against the knob.
- Do not go outside while the eye of the storm (*an area of calm weather at the centre of the storm*) is passing, unless absolutely necessary. Depending on the size of the eye and the speed at which the hurricane is travelling, the calm weather can last for up to half an hour or more, but winds will return unexpectedly from the opposite direction, sometimes with greater force. Don't be caught off-guard.
- If your roof or walls begin to fail, go to an inner room (*preferably one without windows*), or to a cupboard or passageway or empty bathtub or stall and shield yourself with a mattress.

What to Do After the Storm

ALL CLEAR | Beware

Stay indoors until the authorities declare the storm is over. *Note that the **All Clear** announcement may not be made immediately the storm passes because conditions may still make general movement unsafe.*

- Help injured or trapped persons, but do not move seriously injured persons unless they are in immediate danger of further injury. Give first aid, where appropriate.
- Clearance, search and rescue and other emergency vehicles will go out as soon as conditions allow. **Call 911** or **949-6555** for help.
- Do not touch loose or damaged wires or anything that is touching them. Always ensure you wear protective footwear and do not step in pools of water where such wires could be grounded!
- Avoid trees, signs, buildings and other structures that appear damaged.
- Listen for official information from Hazard Management Cayman Islands and Cayman Islands National Weather Service. Such information will include locations of post-hurricane shelters, and arrangements for relief and medical services.
- Use your telephone for emergencies only! You will need the battery to last.
- Remain off the roads until advised by the authorities that it is safe to traverse the roads.
- If you have been away from home, do not return until advised by the authorities that it is safe to do so. Be very careful about re-entering your home.
- Wear protective footwear and do not wade through water.



TROPICAL STORM ALL CLEAR



HURRICANE ALL CLEAR

- **Electrical:** Do not turn on the main electrical switch until you have checked the system for damage. If you see sparks, broken or frayed wires, or if you smell burning insulation, turn off the electricity at the main fuse box or circuit breaker. If you have to step in water to get to the fuse box or circuit breaker, contact an electrician first for advice.
- **Property & Utility Damage:** Make a list of damage to your property. Report fallen electricity poles and wires to CUC, damaged phone lines to Cable and Wireless, and broken water mains to the Water Authority or Cayman Water.
- Before starting clean-up, take pictures of damage, inside and out. They will be important documentation for any insurance claim.
- Open windows and doors to ventilate and dry your home.
- If there has been window or roof damage, try to protect your home from further rain damage by covering exposed areas with tarpaulin.
- Continue to drink bottled water until your regular water supply has been tested safe.
- Check refrigerated foods for spoilage. Throw away any food that has come in contact with flood water as this may be contaminated.

Coping Emotionally

Before & During an Emergency

Fear and anxiety in an emergency are natural but controllable emotions. You need to remain calm so you can think and act rationally. Remember that someone may need your help. If you are feeling particularly anxious or frightened, follow this advice.

- Stop what you are doing and take a few slow, deep breaths.
- Focus on your feelings and thoughts. Talk calmly about them with family or friends.
- Focus on what practical tasks you and your family can do.
- Explain to children what is happening and what they may be feeling. Reassure them and let them help.
- Listen if those around you tell you are acting strangely or seem over-stressed and follow the above advice.

After an Emergency

- When the danger has passed, check if children or neighbours are still distressed. Talk to them about their experience.
- Take some satisfaction in having come through a very stressful and threatening situation.

- Keep as many elements of your normal routine incorporated into the disaster plans as possible and practical, including activities to allay children's fears.
- Be aware that you may have fewer resources to attend to your day-to-day activities after the emergency, so it is best to do what you can ahead of time.
- Adjust your expectations and keep positive. You will not be able to do everything you did before and may not have all the resources you had before. Focus on what you can do and look for the new opportunities the situation brings.
- Turn to family, friends, and important social or religious contacts to set-up support networks to help deal with the potential stressors.
- Let your children know that it is okay to feel upset when something bad or scary happens.
- Encourage your children to express feelings and thoughts, without making judgments.

Be aware that a range of physical and emotional reactions may occur. These are a normal response to the experience. However, should they continue for an extended period, contact the mental health helpline "CayMind" at 1-800-534-6463.

Post-Hurricane Safety

Beware Of Unstable Structures

Never assume that water-damaged structures or ground are stable. Buildings that have been submerged or have withstood rushing flood waters may have suffered structural damage and could be dangerous.

- Don't work in or around any flood-damaged building until it has been examined and certified as safe for work by a registered professional engineer or architect.
- Assume all stairs, floors, and roofs are unsafe until they are inspected.
- Leave immediately if you see or feel shifting or hear any unusual noises. These signal a possible collapse.

Tiredness can lead to Injuries

Continued long hours of work, combined with exhaustion, can create a highly stressful situation during cleanup. People working on hurricane cleanup can reduce their risks of injury and illness in several ways:

- Set priorities for cleanup tasks and pace the work. Try not to get totally exhausted.
- Resume a normal sleep schedule as quickly as possible.
- Be alert to emotional exhaustion or strain. Consult family members, friends or professionals for emotional support.

Carbon Monoxide can Kill

Carbon monoxide (CO) gas is poisonous to breathe and is even more dangerous because it cannot be smelt or seen.

CO is formed in the exhaust of gasoline-powered devices such as generators, pumps and pressure washers, as well as by using camp stoves or charcoal grills or coal pots/stoves. These items are commonly used in the aftermath of a storm if there is a power outage.

To be Safe:

- NEVER use generators indoors, including in homes, garages, and other enclosed or partially-enclosed areas, even with ventilation. Only operate the generator outdoors in a well-ventilated, dry area, away from air intakes to the home, and protected from direct exposure to rain, preferably under a canopy or open shed.
- If you start to feel sick, dizzy, or weak while using or being near a generator, pumps, pressure washers, camp stoves or charcoal stoves get to fresh air RIGHT AWAY. DO NOT DELAY. Carbon monoxide can rapidly lead to full incapacitation and death.
- If symptoms persist go to the hospital immediately and inform medical staff that CO poisoning is suspected.
- Install battery operated certified CO alarms or plug-in CO alarms with battery back-up in your home, according to the manufacturer's installation instructions.

Generator Safety

Portable electric generators offer great benefits but can be hazardous if used improperly. They can cause carbon monoxide poisoning, electrocution and fires. Follow these safety tips on the proper use of generators:

Prevent Electrocution

- Keep the generator dry and do not use in rain or wet conditions. To protect from moisture, operate generators on a dry surface under an open, canopy-like structure. Dry your hands if wet before touching the generator.
- Plug appliances directly into the generator. Or use a heavy duty outdoor-rated extension cord that is rated (in watts or amps) at least equal to the sum of the connected appliance loads. Check that the entire cord is free of cuts or tears and that the plug has all three prongs, especially a grounding pin.
- NEVER try to power the house wiring by plugging the generator into a wall outlet, a practice known as "backfeeding". This is an extremely dangerous practice that presents an electrocution risk to utility workers and neighbors served by the same utility transformer. It also bypasses some of the built-in household circuit protection devices.
- If you must connect the generator to house wiring to power appliances, have a qualified electrician make the appropriate connection.

Prevent Fires

- Before refuelling the generator, turn it off and let it cool down. Gasoline spilled on hot engine parts could ignite.
- Do not over-fill the tank; only fill to level line or about 90% of the tank's capacity.
- Refuel generators in a well ventilated area and clean up all spills before restarting the machine, or move it from the refuelling area.
- Check for leaks before starting the generator.
- If the generator is giving problems, get it repaired by a mechanic.



Handling Hazardous Chemicals

Store used oil, solvents and batteries in a safe and secure location outside of the home before transporting to the landfill. Always protect yourself from chemical burns by wearing work gloves and work shoes when handling dangerous chemicals and batteries.

Gasoline & Diesel

- Never drink water from a container that has held gasoline or diesel. Gasoline contains an ingredient that is known to be capable of causing cancer.
- Never siphon gas by mouth or put gasoline in your mouth for any reason. Gasoline can be fatal if swallowed. If gas is swallowed, do not induce vomiting. Contact a doctor immediately.
- Separate gasoline, oil, solvents, lubricants and household cleaners in secured containers for storage.
- Store gasoline only in containers made for the purpose. These containers have "UL or FM" "imprinted on them. These are international symbols that lets you know the container is safe for gasoline. Hardware and supply stores sell these containers. Other containers such as glass bottles, soda cans, bleach bottles, etc., can break or leak.
- Don't store gasoline containers in the same place as a fuel-burning appliance. Gasoline vapours can travel invisibly along the ground and catch on fire from pilot lights or arcs caused by activating electric switches.
- When filling the container place it on the ground to avoid fuel vapours catching fire because of static electricity.
- Make sure containers are secured with lids before transporting.

Vehicle Batteries

- Keep batteries upright and place side by side without stacking to prevent leakage.
- Store battery acid in an appropriate container.
- If battery acid spills on your skin, rinse immediately with soap and water. Take precautions and protect your eyes.
- Clothing should be discarded if battery acid has spilt on them.

In-home Fire Safety Tips

- If possible use solar powered or battery operated lamps and lanterns rather than candles which could be a fire hazard.
- If candles are used, keep away from open windows and doors, curtains, paper towel holders, tablecloths etc.
- Never leave candles unattended and always extinguish candles before going to sleep.
- Keep lighters and matches in a safe place and away from children.
- Make sure that matches and cigarettes are properly snuffed out before throwing away.

Gas stoves & Gas Lanterns

- Before using, make sure all persons intending to use the stove reviews the instruction manual.
- Never use in enclosed room; always ensure proper ventilation is available.
- To avoid the build-up of gas in a gas stove or lantern, always light the match or lighter and hold it to the burner before turning on the valve.
- Never allow children to operate a gas stove.
- Keep all combustible materials such as towels, paper holders, pot holders etc, away from stove when in use.
- Never leave a lit stove unattended.
- Propane cylinders used for cooking must be kept outside of buildings. This includes the small 20lb cylinders.
- Always turn off cylinder after each use.

Grills & Charcoal Stoves

- Keep lighter fluid away from burning coals, and other open flames.
- Never use a grill inside the home.
- Make sure coals are properly snuffed out after each use.

Oil Lamps

- Refuel oil lamps in a ventilated area and clean up any spills before lighting.
- Move the lamp away from the area where it was refueled.
- Keep lamps away from any possible moving objects such as curtains, fans etc.

Fire Extinguishers

- Always ensure that your home has adequate fire extinguishers.
- Learn how to use extinguishers before they are needed.

Smoke detectors

- Make sure your home is equipped with at least one working smoke detector. Change the batteries annually.



Preventing Disease in the Aftermath

Water

All water used for drinking or preparing food must be clean and free of bacteria and other germs (*in other words, it must be potable*). It is likely that the piped water supply system will have been shut down to minimise contamination and damage. The system will not be turned back on until it has been thoroughly checked. This might take some days or even longer.

- Use water you stored before the storm if it has not been contaminated. Use your water sparingly as potable water may be in short supply.
- As far as possible, use bottled water for drinking and cooking.
- If your cistern or well has been flooded do not use the water for bathing, drinking, food preparation or cleaning utensils as the water may be contaminated. Such water should only be used for flushing the toilet.
- If you are sure your cistern was not flooded you may use the water. Nevertheless, sterilise it before consuming or using for food preparation.
- Rain water should also be sterilised before you drink it or use it for preparing food.
- You can also catch and use rain water for bathing and personal hygiene, but disinfect it first by adding a little disinfectant such as Savlon, Dettol or other disinfectant. Follow the directions that are on the label.
- When the tap water returns, you should sterilise it with bleach or by boiling before you use it for drinking or preparing food. Do this until the water company tells you it is safe for drinking.

How to Sterilise Water:

Add 2 to 3 drops of household bleach per gallon of water and let the water stand for at least 30 minutes or if you own a propane stove you can sterilise water by boiling. Bring water to a boil and let it remain boiling for 5 minutes or add water purification tablets to the water. Follow the manufacturer's instructions.

Food

Throw away the following foods:

- Perishable foods that have not been refrigerated or frozen properly due to power outages.
- Foods that may have come in contact with floodwater or stormwater.
- Foods with an unusual colour, odor or texture.
- If power has been out for more than 4 hours, all perishable foods (*including meat, poultry, fish, eggs*) can be thrown away.
- All perishable foods in your freezer that have thawed.

Do not eat any foods that have come in contact with stormwater, including:

- Food in packages that are not waterproof.
- Food in cardboard containers (*including juice/milk/baby formula boxes*).
- Canned foods or food containers that are bulging, opened, or damaged. Throw out cans or food containers that spurt liquid or foam when you open them. When in doubt, throw it out!

Personal Hygiene & Sanitation

- Always wash hands with soap and clean water that has been sterilised. If there is no water, use hand sanitiser.
- Do not allow children to play in or around standing water.
- Avoid putting hands or other objects that may be unclean into mouth, or touching them to eyes or nose.
- Water can be poured into the toilet tank or directly into the toilet bowl to flush away bodily waste. However, if the septic tank is flooded the toilet will not flush. In this case, do not defecate in your toilet. Instead make a makeshift toilet from a small bin lined with plastic garbage shopping bags. After defecating, tie off the bag and place in it a larger bin lined with heavy-duty trash bag to prevent odor. Keep outside in a garbage cage, off the ground or in a fenced-off area that animals cannot get to until garbage collection resumes. If possible keep one bin for human refuse and another for household garbage though both will be picked up together when garbage collection resumes.

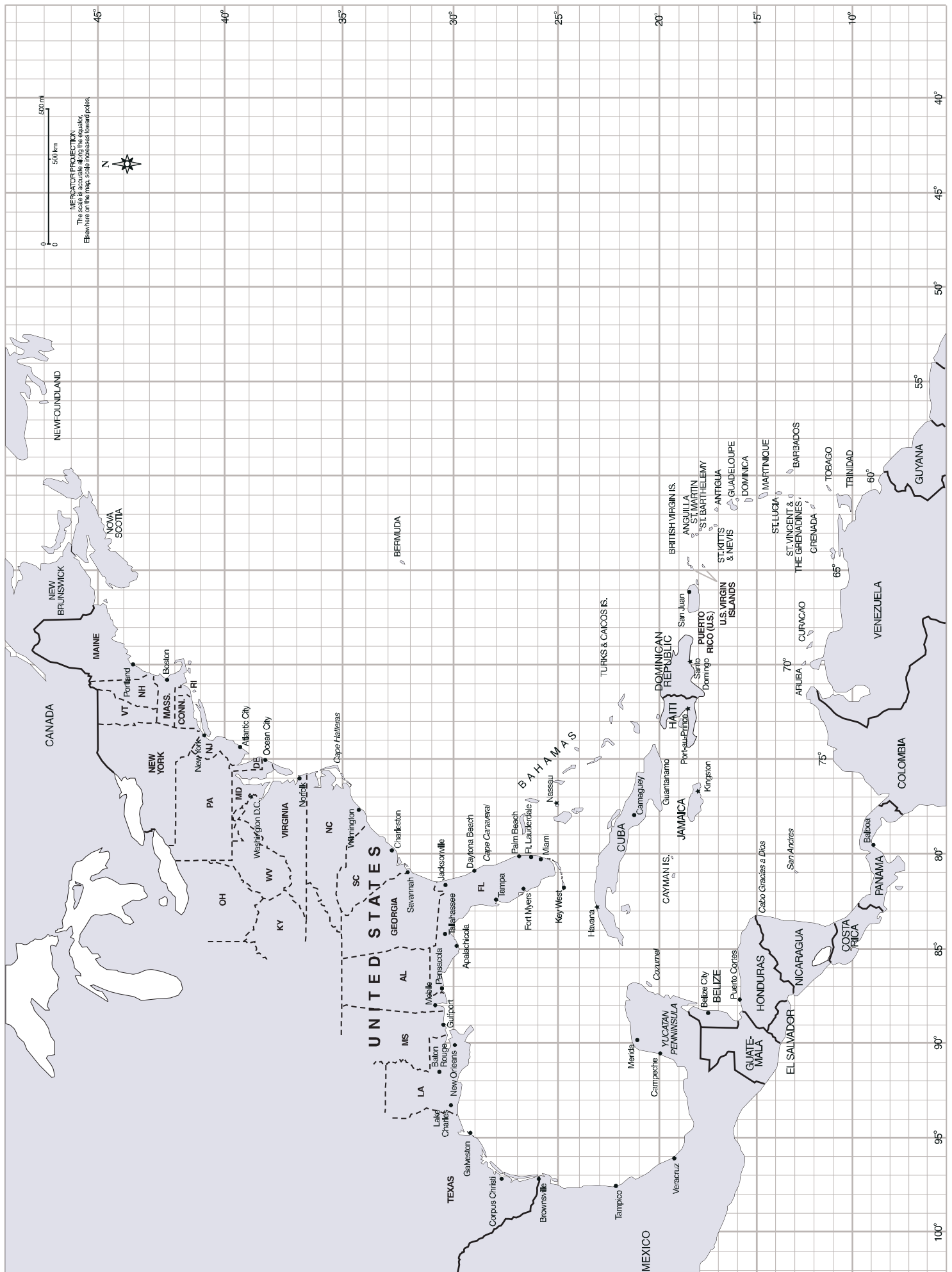
Dealing with Garbage

- If possible, place rotting food and other unpleasant garbage in smaller bags which are discarded in a larger garbage bag within a plastic or metal bin. Placing garbage in plastic bins or raising it above the ground will secure garbage from animals.

Dealing with Bodies

- Do not touch human or animal remains as there may be a health risk. If the body is human or you suspect that it is, contact your district police station immediately. Until help arrives to take possession, cover with a sheet or tarpaulin.
- For animal remains, contact the Department of Environmental Health at 949-6696.

ATLANTIC HURRICANE TRACKING CHART





Make a Personal Hurricane Plan

Knowing what to do when a hurricane hits could save you a good deal of discomfort. It may even save your life. Make sure everyone in the family knows early on what each person has to do. Your first objective is to make sure everyone is as safe as possible.

Anyone in the Cayman Islands who is the head of a household should make a personal plan for themselves and their families. Your plan should cover both what to do before, and during the storm. Make sure you also plan for immediately after the storm, when you and your family may be on your own without help.

Things to Consider

Decide where you want to be during a storm (*see inside for tips on deciding where to stay*).

If you decide to stay in your home, have a back-up plan for shelter in case a problem comes up that you did not foresee.

Decide what to do if your family gets separated. Have a designated meeting place and a backup.

Tell at least 2 family members who live outside your area (*even off island*) where you plan to be during a storm. If you change plans, let them know and try to contact them after the storm.

Involve all the family, especially children, in your preparations. Each family member should have responsibilities so that work is shared and nothing is overlooked.

Make preparations for the children. Decide now who picks them up from school during a storm threat if both parents work.

Decide what you will do with your pets if you have to go to a public shelter (*see page 9 "Protecting Your Pets" for more information*).

If your job requires you to work during a storm, make sure that when the hurricane hits, at least one parent or adult relative will be with the children or with adults who have special needs. If your work place is secure, find out if your children can stay with you there.

If you can, have emergency cash put away. A hurricane may disrupt banking schedules.

Automated teller machines and credit cards may not work or may run out of cash.

Get together with neighbors and decide how you will help each other before and after a storm.

Finding Your Safe Place

In a one-story home, the strongest room is often a bathroom or walk-in closet near the centre of the house.

The strongest wall in a two-story home is often near the stairwell; a first floor closet nearby may be the safest spot.

See inside for more tips on protecting yourself and your home from a storm, or visit our website.

Hazard Management Cayman Islands

345-945-4624 | HMCI@gov.ky

949-6555 (*Only during activation of National Emergency Operations Centre*)

 @Cayman Prepared  @Caymanprepared  @CINEOC

www.caymanprepared.ky