



## Oyster Harbors How to be a Hurricane Survivor!

### Why Should Your Family Prepare?

The Osterville area of Cape Cod, like other communities, is subject to the effects of major emergencies and disasters derived from natural, man-made or technological causes. One of the most serious natural disasters would be caused by a hurricane. It is possible for a hurricane to strike the Cape Cod area of Southeastern Massachusetts, threatening lives and property. The impact would be extremely serious upon local jurisdictions and the region. It is important that all residents of Oyster Harbors develop an attitude that awareness and preparedness must be taken seriously to insure that everyone understands what to do before, during and after a hurricane. The time to prepare is now. Do not wait until a crisis occurs to develop your family plan for survival.

### How Are Hurricanes Classified?

The National Hurricane Center classifies hurricanes according to their potential for producing extensive damages on a scale of 1 to 5. Herbert Saffir, a consulting engineer specializing in wind damage to buildings, and Robert Simpson, previous Director of the National Hurricane Center in the 1970s, invented the rating scale. The following table is a breakdown of the average wind, pressure and storm surge values for each of the five hurricane categories. The average atmospheric pressure is given in inches of mercury. The average sea-level atmospheric pressure is 29.92 inches of mercury. Wind speed is given in miles per hour (MPH). Generally speaking, Category 3 hurricanes and higher are categorized as major. Damages will increase exponentially as the category number is raised. (Refer to the table below.)

TYPE	CATEGORY	PRESSURE (IN Hg)	WINDS (MPH)	STORM SURGE (Feet)
Depression	-	-	>35	-
Tropical Storm	-	-	39-73	-
Hurricane	1	>28.94	74-95	4-5
Hurricane	2	28.50-28.91	96-110	6-8
Hurricane	3	27.91-28.47	111-130	9-12
Hurricane	4	27.17-27.88	131-155	13-18
Hurricane	5	<27.17	>155	>18

CATEGORY 1

Oyster Harbors Services – Oyster Harbors Property Owners Association  
How to be a Hurricane Survivor

Damage primarily to shrubbery, trees, and unanchored mobile homes. No real damage to other structures. Some damage to poorly constructed signs. Low-lying coastal roads inundated, minor pier damage, some small craft anchored in unprotected areas torn from moorings.

## CATEGORY 2

Considerable damage to shrubbery and tree foliage; some trees blown down. Major damage to exposed mobile homes. Extensive damage to poorly constructed signs; some damage to roofing materials of buildings; and some window and door damage. No major damage to buildings. Coastal roads and low-lying escape routes inland cut by rising water two to four hours before arrival of the hurricane's center. Considerable damage to piers. Marinas flooded and small craft anchored in unprotected areas torn from moorings.

## CATEGORY 3

Foliage torn from trees; large trees blown down. Practically all poorly-constructed signs blown down; some damage to roofing materials of buildings; some window and door damage; and some structural damage to small buildings. Mobile homes destroyed. Serious flooding at coast and many smaller structures near coast destroyed; low-lying escape routes inland cut by rising water three to five hours before the hurricane's center arrives.

## CATEGORY 4

Shrubs and trees blown down; all signs down. Extensive damage to roofing materials, windows and doors; complete failure of roofs on many small residences; complete destruction of mobile homes. Major damage to lower floors of structures near shore due to flooding and battering by waves and floating debris.

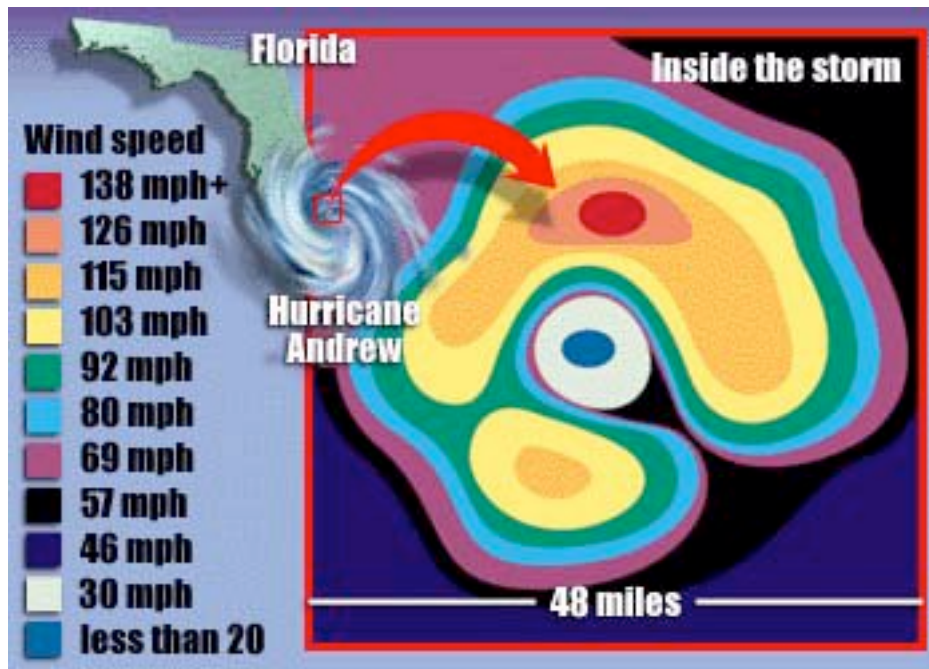
## CATEGORY 5

Shrubs and trees blown down; considerable damage to roofs of buildings; all signs down; very severe and extensive damage to windows and doors; complete failure of roofs on many residences and industrial buildings; extensive shattering of glass in windows and doors; some complete building failures; small buildings overturned or blown away and complete destruction of mobile homes. Low-lying escape routes inland cut by rising water three to five hours before the hurricane's center arrives.

## **Winds...Highly Destructive Forces!**

All hurricanes are different, rapidly changing and dynamic. Generally speaking, the most severe winds are located just outside the eye of the hurricane in the northeast quadrant. For example, the picture to the right of a historical hurricane shows wind spiraling in

toward the calm eye with the wind increasing as it nears the center. The estimates of *ground-level winds* were based upon measurements made by a United States Air Force airplane flying at about 10,000 feet. Friction with the ocean and the ground slows the winds at ground level. Winds at 10,000 feet are even stronger. Hurricanes produce extremely dangerous and destructive winds that kill, injure and devastate cities and whole regions for miles inland. Flying debris (structural materials, glass, trees, power lines, boats and vehicles) can kill! Don't forget, *tornadoes* sometimes unpredictably form within the periphery of a hurricane as the storm moves over land.



### Storm Surge...A Deadly Killer

"Storm Surge" is a large dome of water pushed up in advance of a hurricane making landfall. This dome of water can exceed 20 feet depending upon the strength of the hurricane and tide conditions. Storm surge flooding has caused more deaths than hurricane winds. Storm surge is not to be confused with a tidal wave or tsunami. It is a large amount of water on top of which there is heavy wave action. A storm surge can last for several hours. In a deep ocean, this huge dome of water sinks and flows away. As the storm nears land, the rising sea floor blocks the building water's escape. It comes ashore as a deadly storm surge. During high tide, the storm surge will be even deeper and more extensive. Contact your local Emergency Management Agency for more information as to the risks to your family or property from storm surge (see back cover for phone numbers).

### Flooding...A Dangerous Situation

Flooding may result from both heavy sustained rainfall or storm surge inundation. As the hurricane moves inland, it will be accompanied by a large amount of rainfall over a short period of time. This adds to the previous storm surge flooding and collects outside the normal boundaries of rivers, streams, lakes and canals. Depending upon a storm surge's wave size and ground elevation, water may become trapped. This creates additional

associated hazards, such as drowning, electrocution from fallen power lines, health risks associated with drinking contaminated water and property damage or loss.

## ***BEFORE A HURRICANE THREATENS***

### **How Safe Is Your Home?**

If you live near the coast, plan to relocate during a hurricane emergency. If you live in a mobile home, always plan to relocate. Don't forget that public utilities may fail if a hurricane strikes. Utilities include cable television, electric, natural gas, sewer, storm water, telephone and water. It may take days or weeks before they can be restored. This may make survivability extremely difficult. *How would your family survive with one or more of the above utilities no longer available for days or weeks?* Your home may be safe, but you could be affected by the loss of one or more public utilities by being close to the disaster stricken area. Contact your local Emergency Management Office for assistance in evaluating the vulnerability of your home as to the flood risks.

### **Do You Have an Out-Of-State "Family Contact"?**

Do you have an out-of-state friend or relative who can be your "family contact," in case your family members are separated? After a disaster, it is often easier to call long distance. Family members should call this person and advise them of their location and status. Everyone must know the telephone number of your designated family contact.

### **What About Family Pets?**

Don't forget to make special arrangements and plans for a place that will safely house, feed and care for your pets. If you evacuate, are the pets going with you? Don't forget to include food and water in your Family Disaster Supplies Kit. You will not be allowed to bring your pets to public shelters. Make arrangements with your veterinarian, humane society or private pet shelter outside the normal hurricane impact areas.

### **Family Members Must Plan Together**

Families can cope with a disaster by preparing and working together as a team. Create a family disaster plan. Planning what to do is your best protection and your responsibility. Involve all family members in the planning process, so that they know what to expect, as well as what to do when a Hurricane Watch or Warning is issued. When will you evacuate or go to a shelter? Routinely practice and update your plan.

### **Family Disaster Supplies Kit**

Keep these supplies at home throughout the year in preparation for major emergencies or disasters. We recommend that you keep them in a separate "Family Disaster Supplies Kit" so they are easy to find when you need them. Identify a safe room for storage of the supply kit and where you can go if a hurricane hits. *Don't forget to rotate and replace expired items throughout the year.*

Family members should discuss and plan additional supplies that might be needed over an extended period of time. Be ready for the hurricane season. Some supplies will be required in the event you elect to stay in your home. Others may be required if you evacuate or

## Oyster Harbors Services – Oyster Harbors Property Owners Association

### How to be a Hurricane Survivor

relocate or go to a shelter. Plan supplies so they are clearly accessible and identifiable. After a hurricane watch is issued, there may be a high demand and short supply of many items.

- AM/FM radio (AC/DC battery operated)
- Baby food, diapers, formula and other supplies
- Backpack, duffel bag, portable cooler or other containers
- Bleach (without lemon or any other additives)
- Canned or packaged foods, milk and beverages (minimum 7-day non-perishable food supply for each family member)
- Can opener (non-electric)
- Changes of clothing, hard soled shoes and rain gear for each family member
- Eating utensils and supplies
- Emergency cooking facilities (camping equipment and supplies are great)
- Extra prescription medications, glasses or hearing aids (see your doctor)
- Fire extinguishers (checked and serviced annually)
- First aid kit (adequate capacity and type for the size of your family)
- Flashlights & extra batteries (size and type for flashlights, radios, etc.)
- Food and water for pets
- Important documents (driver's license, birth certificate, insurance documents, etc.)
- Lanterns and fuel (stored in safe container & location)
- Matches (stored in a safe and protective container)
- Mosquito repellent
- Non-perishable foods, milk and beverages (minimum 7-day supply for each family member)
- Plywood boards  $\frac{3}{4}$ " to board up windows (cut & fit ahead of time)
- Quiet games, toys, books and cards
- Sleeping bag and blankets for each family member
- Spare batteries for flashlights, radios, etc.
- Spare keys for home, vehicles, boats, etc.
- Toilet paper, soap, tooth brushes, tooth paste and other personal hygiene items
- Water (1 gallon per person per day for drinking purposes)
- Water purification procedures & tablets (check with your local health department)
- Weather alert radio (AC/DC battery operated)
- Other items preplanned by the family

## ***DURING A HURRICANE WATCH***

### **What Is a Hurricane Watch?**

A *Hurricane Watch* is issued by the National Hurricane Center to *ALERT* specific regions or states that hurricane conditions pose a threat to a specified area *within 36 hours*. Monitor storm reports on radio and television closely. Implement your family plan. If evacuation has not already been recommended, consider leaving the area early to avoid long hours along congested and limited evacuation routes.

### **Portable Radio with Fresh Batteries**

Your radio will be your most useful information source. This includes both your AM/FM and Weather Alert Radios. Have enough batteries to last several days. Electricity may not be available for days or weeks, if you choose to stay. Don't wait until the last minute to buy fresh spare batteries. There will be a high demand and short supply of vital supplies shortly

after a hurricane watch is issued.

### **Flashlights, Lanterns and Matches**

Store matches in a waterproof container. Have lantern fuel in a safe container and location adequate to last for several days, if you plan to stay. We do not recommend candles. Keep fire safety in mind. If you had a fire, emergency response could be difficult or impossible!

### **Full Tank of Gasoline**

Never let your vehicle's gas tank be less than half-full during hurricane season. Fill up as soon as a hurricane watch is issued. Adequate fuel will be needed in the event of an evacuation. Remember, when electrical power fails, gas pumps will not work!

### **Canned Goods and Non-Perishable Foods**

Store packaged foods that can be prepared without cooking and need no refrigeration. Don't forget a manual can opener!

### **Containers for Drinking Water**

Have clean, air-tight containers to store sufficient drinking water for several days. The local water supply will probably be interrupted or contaminated.

### **Materials for Protecting Windows and Doors**

Have shutters or lumber ready to protect large windows and doors. Be sure to include the necessary hardware and tools to securely cover windows and doors.

## ***DURING A HURRICANE WARNING***

### **What is a Hurricane Warning?**

A *Hurricane Warning* is issued by the National Hurricane Center where sustained winds of 74 mph (64 knots) or higher are expected within a specified area *within 24 hours or less*. All precautions must be completed immediately.

### **If You Live in a Mobile Home**

*Check tie-downs, turn off utilities and leave immediately for a safer place.* Mobile homes are *unsafe* in hurricanes, tornadoes or severe thunderstorms. Can you imagine what hurricane-force winds would do to your mobile home?

### **Prepare for High Winds**

Brace your garage door. Lower antennas. Be prepared to make repairs. Awnings, garbage cans, grills, lawn furniture, loose garden tools, toys and all other loose objects can be deadly missiles. Anchor securely or bring indoors. Securely board up or shutter large windows. Draw drapes across windows and doors to protect against flying glass.

## **Move Boats on Trailers Close to House**

Fill boats with water to weigh them down. Lash securely to trailer and use tie-downs to anchor trailer to the ground or house. Check mooring lines of boats that must remain in water, then leave them. Accomplish this ahead of the hurricane watch to save time.

## **Store Valuables and Personal Papers**

Put important documents (birth certificates, heirlooms, personal inventory lists, pictures, titles, wills, etc.) in waterproof containers and store them in the highest possible location protected from potential flooding. If you evacuate, be sure to take them with you. You should have secured most of your valuables and important papers in a safety deposit box, during the family planning process.

## **Prepare for Storm Surge, Tornadoes & Flooding**

Storm surges, tornadoes and floods are killers associated with a hurricane. In a Tornado Warning, seek inside shelter below ground level if possible. Otherwise, go to the inner-most small room away from outside walls, doors and windows on the lowest level of your structure. If you are outside, seek cover in ditch or other low spot. Do not attempt to outrun a tornado!

Mobile homes and portable buildings are extremely unsafe, during a tornado! The surge of the ocean water plus flash flooding of streams and rivers due to torrential rains cause 90% of the deaths associated with hurricanes. If you anticipate that your family will be at risk, evacuate early before the hurricane watch is issued! Complete evacuation well before the arrival of tropical force winds.

## ***IF YOU MUST EVACUATE***

### **Implement Your Evacuation Plan**

Know where you are going and leave early (preferably at the beginning of the watch period), leaving sufficient time to avoid heavy evacuation traffic. Evacuate in daylight with a full tank of gas. Take only the most valuable possessions with you; otherwise place them in high points away from flooding within your home. Listen to your car radio for additional emergency information or evacuation routing problems.

### **Lock Windows and Doors**

Turn off gas, water and electricity. Check to see that you have done everything you can to protect your property from damage or loss.

### **Carry Along Survival Supplies**

You should have preplanned what to take within your vehicle (blankets, bottled water, canned or dried provisions, eating utensils, extra family medications, first aid kit, games, hearing aid, manual can opener, prescriptions, sleeping bags, spare batteries, spare glasses and other essential survival items). Take additional changes of clothing and foul weather gear.

## **Keep Important Items with You at All Times**

You should have preplanned to keep in your possession your driver's license, personal identification papers, insurance policies, personal property inventory, medic-alert or device with special medical information, maps to destination, heirlooms, valuable pictures and essential paperwork that may be vital during and after your evacuation. Take cash, since ATM or credit card machines may not be working.

## **Going to a Shelter**

Take blankets, sleeping bags, flashlights, special dietary foods, infant needs, games, lightweight folding chairs, and water. Register every person arriving with you at the shelter. Do not take pets, alcoholic beverages or weapons of any kind to the shelter. Be prepared to offer assistance to shelter workers if necessary, and advise all family members of their obligations to keep the shelter clean and orderly.

## **Evacuation Route to Safety**

During emergency situations, residents need to listen to radio or television stations for specific information from local emergency management officials. Situations will be constantly changing through the evacuation period. Leave as early as possible and use routes specified for your area.





**Public Shelters:**  
**Osterville/Hyannis**

**(1) Barnstable Middle School**

895 Falmouth Road

**(2) Horace Mann Charter School**

730 Osterville – West Barnstable Road

**(3) Barnstable High School**

774 W. Main Street