

Part 1

Introduction

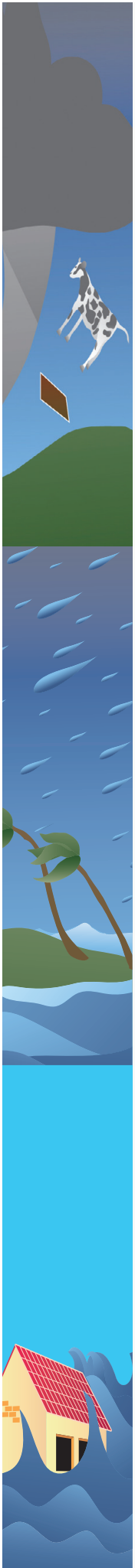
Your home is your castle. It protects you and your family, as well as your worldly possessions, from the elements. For many, the home is also your major investment. Yet natural hazards such as tornados, hurricanes, floods or high wind events can threaten your home, both the inhabitants and contents. When a natural hazard occurs, the results can be devastating.

This handbook was created to help you prepare for a natural hazard so that risks to family and property may be reduced. While it is never possible to eliminate all damage from a natural hazard, you as a homeowner can take action and implement many small and cost-effective steps that could significantly lower your risk. Mother Nature can be intense. Your family and home deserve protection that only you can provide.

This handbook is divided into five parts. This Introduction presents the purpose and layout of the handbook and includes a discussion of common myths that may have prevented you from taking action in the past. There is also a summary of the content of this handbook in the form of 9 action items. Part 2 provides basic information on tornados, hurricanes and flooding that will allow you to make an educated decision about the steps to take to protect your family and property. Part 3 discusses in detail how to protect yourself and your family. Included in this section are the stock of essential emergency supplies, evacuation kit, evacuation planning, evacuation procedures and important information that the civil defense and emergency management agencies want you to know even before a warning siren goes off. Part 4 covers how you can protect your property from wind and water hazards. Many examples are provided. Part 5 presents insurance resources to aid in recovery if storm damage occurs.

This handbook is available for free as a downloadable file at the Storm Smart Coasts website designed for Mississippi:
<http://ms.stormsmartcoasts.org/handbook/>.





This handbook will be updated on an as-needed basis as new information becomes available and feedback from the public is obtained. You can also contact your state or county civil defense and emergency management agencies by phone at the addresses and numbers provided (See Appendix B). In addition, many of the sponsors and participants of this handbook may have updated information on their own websites.

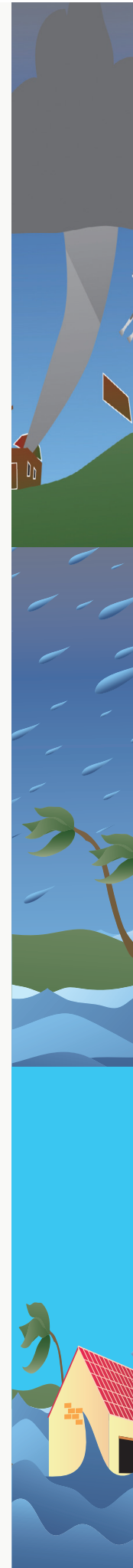
1.1 COMMON MYTHS AND REASONS TO PREPARE

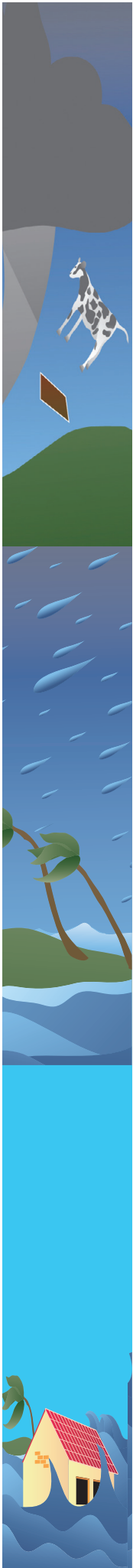
You may be among the many homeowners in Mississippi who have not fully prepared for a natural hazard because of complacency caused by several myths. The most common myths appear as quotes below and are discussed in order to remove some of the major barriers to taking action and to encourage people to prepare.

- 1) “I survived Hurricane Katrina so I am sufficiently prepared.” Many people have the impression that if they survived Hurricane Katrina, then they do not need to prepare any more than they did in 2005. Although Katrina was a storm with wide-spread damage, it was in fact a large, but otherwise typical, hurricane. The same storm could make landfall at a different location along the coastline and have much different results.
- 2) “If a hazard occurs, it won’t be that bad.” When a tornado, hurricane or flood event occurs, the damage can be devastating. Although Katrina was only a Category 3 hurricane when she made landfall, over 1,800 people were killed, making Hurricane Katrina the third deadliest hurricane in U.S. history. More than 275,000 homes were lost as a result of the hurricane, 10 times as many as any other natural hazard in U.S. history.¹
- 5) “I don’t live near the coast, so I am safe.” In fact, the vast majority of damage or destruction by Hurricane Katrina was caused by the powerful winds of the hurricane. Storm surge from Hurricane Katrina was recorded traveling up to 12 miles inland and hurricane-force winds were felt near Hattiesburg, Mississippi.² Therefore, all homeowners should prepare, not just those along the coast.
- 6) “Installing hurricane clips doesn’t guarantee there will be no damage after a hurricane, so I won’t bother.” Even though someone may wear a seat belt, shoulder belt, and have an airbag, there is no guarantee that

a person won't be injured in a major auto accident. Yet most people recognize the importance of these safety devices in reducing risk and use them. Likewise, the measures discussed in this handbook could significantly reduce risk, although there are no guarantees.

- 7) "If a natural hazard occurs, government will come to the rescue." After Hurricane Katrina, many residents found that the government would not repair their damaged houses or even provide adequate compensation for property damage. It is up to you to plan properly, strengthen your house and have the appropriate financial protections in place, such as insurance, if it is available. After a natural hazard, the government may also be overwhelmed by the number of people in need.
- 8) "My house survived Katrina, so I do not need to retrofit for hurricanes." If and when another massive natural disaster occurs, the resulting damage will be much greater. Homeowners in coastal Mississippi should consider retrofits that provide a continuous load path connection, which will help protect homes against both hurricanes and tornados. Additional simple measures are also possible.
- 9) "Even if a hazard occurs, there is nothing I can do." Fortunately, there are many small steps you can take to significantly reduce the risk of damage to life and property. While it is not possible to eliminate all risk or damage, these reasonable steps to plan and prepare can make a major difference and determine whether your house survives and just receives minor or no damage. Thus, the information in this handbook covers two major parts for preparation: (i) protecting yourself and your family, and (ii) protecting your property.
- 10) "Strengthening my house is too expensive and not worth the effort." The following list discusses various ways to strengthen your house and the associated costs.
 - Hurricane clips or window coverings can range from a couple of hundred dollars to a few thousand dollars. This alone offers significant protection.
 - For minimal costs, the roof structure (trusses and rafters) for many houses can be strengthened with bracing.



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- Strengthening your roof can be expensive if done by itself. However, if it is done when you replace your roof at the end of its normal life, the incremental cost is reasonable.
 - Foundation upgrades can be expensive, but considering your house is probably your major investment, it could be worth the immediate cost.

Strengthening your house can protect you from tornados, hurricanes and floods. This is a double benefit, especially for those in Jackson, Harrison and Hancock counties. Many of these upgrades can be offset with insurance premium discounts. Ultimately, strengthening your house should be considered a home improvement that adds value to your house and is worth the effort, even without external incentives. The time and money spent to prepare your house is a very small fraction of the resources that may be needed if you fail to minimize damage when a natural hazard strikes. In addition, when a hazard such as a hurricane nears, evacuation to a shelter should be considered a last resort. There will be minimal supplies, the simplest of sanitary facilities, a bare floor and little space (10 square feet per person). You will have to bring your own supplies, including bedding, medication, food and water. By preparing and strengthening your house, you are more likely to “weather the storm” in far more comfortable conditions and better take care of family members, including the elderly, those with special needs and pets. Also, by strengthening your house you protect your neighbors as well as yourself. A house that falls apart during a hurricane will create debris which can damage adjacent properties. You also help the emergency efforts of the local, state and federal governments by being able to assist other people instead of requiring help yourself.

1.2 THINGS YOU CAN DO TO PREPARE

As covered in later parts of this handbook, here are 10 things you can do to prepare that will provide greater protection to your family and your property.

- 1) Gather your emergency supplies. You can gather emergency supplies in your house now. Check and restock each month so that the supplies are complete, not outdated or used. Avoid rushing to a store during an emergency to gather your supplies. There will be long lines and empty shelves. You will add to the crowd and confusion. The good news is

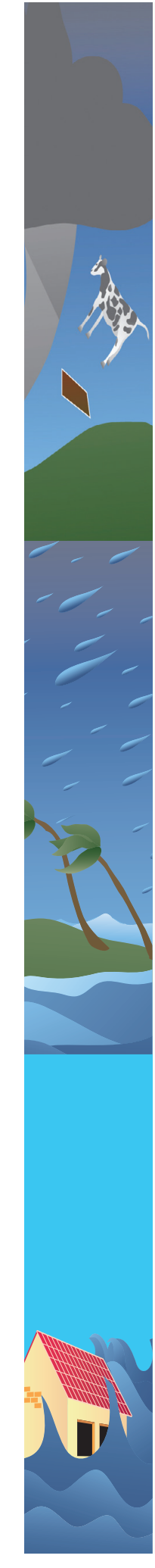
many items you need are probably already in your home (see Part 3 of this book).

- 2) Create an evacuation plan for both a flood and a hurricane. They are different. For a hurricane, your plan may include sheltering in your house if it is outside the evacuation zone and sufficiently strong (see # 5). If you can't use your house, use a suitable alternative structure (a friend's or relative's house) or a shelter that is officially open (listen to local radio and television) (see Part 3).

For a flood, evacuate to high ground outside the evacuation zone if: (i) there is a flood strong enough so that you cannot stand, or (ii) you are instructed by local radio and television to evacuate. Once you have evacuated, the wait may be many hours (see Part 3). Discuss and practice drills of your evacuation plan with your family each year.

- 3) Know your property and take appropriate action. Look at where you are located. If the land floods or you live in coastal counties, you should consider flood insurance. You should consider trimming or cutting the branches that overhang your house since they may damage your house in a storm. If the property is near a ridge, it may be especially susceptible to wind damage during a storm or hurricane (see Part 4).
- 4) Know your house and take appropriate action. When was your house built? Does it have connectors to tie the roof to the wall or the wall to the foundation? When will you need to re-roof? Look at your blueprints. They may be available from your homebuilder, your local building department, or your architect (see Part 4).
- 5) Strengthen your house. A recently-built house should have hurricane clips to tie the roof to the wall and strong connectors from the wall to the foundation. If your house was built before then, you can still retrofit at a reasonable cost. All households should consider the many options now available to protect your windows, garage and doors. You can also strengthen your roof when it is time to re-roof. The steps a homeowner can take will vary with each house, but for a majority of homeowners, there are a few steps that can make a significant difference (see Part 4).



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- 6) Finance creatively. Consider efforts to strengthen your house as an important home improvement project. Most projects are not that expensive. For the more costly ones, a small home improvement loan, combined with potential discounts from hurricane insurance premiums, make these projects within reach. It is a great investment to strengthen your house and provide more protection to your family (see Part 4).
 - 7) Seek the assistance of a qualified, licensed architect, structural engineer, or contractor. This handbook covers work that you may be able to do yourself. If you cannot do the work, seek qualified assistance through trusted references from friends and family, the Structural Engineering Association, your county civil defense and emergency management agencies, or contractors associations. Even if you do the work yourself, it is always best to seek professional advice for initial guidance because every house is a little different (see Part 4).
 - 8) Insurance. Don't gamble with your house. Obtain adequate insurance for hurricanes and floods (see Part 5).
 - 9) Take advantage of potential discounts for your hurricane insurance premiums. Coverage may vary among insurance companies so call your insurance agent to find out about discounts that may be available. Significant discounts may be provided for reducing the risk to your house with window protection, roof-to-wall tie downs (hurricane clips) and wall-to-foundation tie downs (see Part 5).