FLASH, Inc.
FEDERAL ALLIANCE FOR SAFE HOMES
Strengthening Homes and Safeguarding Families
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Flood

A Flood Overview

What Is a Flood?

Devastating floods occur throughout the U.S. every year. Ninety percent of all presidentially declared natural disasters involve flooding.

Flooding is usually divided into two categories: flash flooding and river flooding. Both can cause death, injury and property destruction.

Flash floods are usually caused by slow-moving thunderstorms or thunderstorms that move over the same area one after the other. Flash floods usually occur within six hours of heavy rainfall and are usually more life threatening, according to the National Weather Service.

The majority of deaths from flooding occur when people become trapped in automobiles that stall while driving through flooded areas. Nearly half of all flood fatalities are vehicle-related.

How Floods are Formed

Several factors contribute to flooding. The two key elements are rainfall intensity and duration. Intensity is the rate of rainfall, and duration is how long the rain lasts. Topography, soil conditions, and ground cover also play an important role.

What Is a Flash Flood?

Intense rainfall in a brief period leaves more water than the ground can absorb. When this happens, flash flooding can occur.

Flash floods are usually caused by slow-moving thunderstorms or thunderstorms that move over the same area one after the other. Flash floods usually occur within six hours of heavy rainfall and are usually more life threatening, according to the National Weather Service.

Flash floods occur with little or no warning, move at very fast speeds and can reach a peak in a few minutes. They can roll rocks, tear out trees, sweep away cars and trucks, and destroy buildings and bridges. Rapidly rising water can reach heights of 30 feet or more. Flash flood-producing rains can also trigger catastrophic mudslides. You will not always have a warning that these deadly, sudden floods are coming. Most flood deaths are due to flash floods.

Animated How-To: TADD

Turn Around Don't Drown®

Floods are the most common and widespread of all weather-related natural disasters. And flash floods are the most dangerous

kind of floods, because they combine the destructive power of a flood with incredible speed and unpredictability.

Many weather conditions can cause a flash flood. Theyre often the result of heavy rainfall from slow-moving thunderstorms or new thunderstorms developing and moving over the same area or from the rain of hurricanes or tropical storms concentrated over one area.

Rapidly rising water creating a flash flood may occur with little warning.

Every year, more deaths are caused by flooding than from any other severe weather related hazard. Why? The main reason is that people underestimate the force and power of water.

Did you know that as little as six inches of moving water can knock you off your feet or cause you to lose control of your car&

And just two feet of water can cause a car even a big SUV to be swept off a road or bridge.

When cars are swept downstream into fast moving water often, the people inside them drown.

Tragically, emergency responders are often injured or killed as they attempt to rescue individuals trapped by flooding.

But many of these deaths are preventable.

Whether you are driving or walking, if you come to a flooded road, follow this simple rule: Turn Around Don't Drown.

Dont take a chance and cross a flooded road or bridge because you cant determine the depth of water or the condition of the road or bridge.

FLASH and the National Weather Service have some simple guidelines to help you and your family stay safe in flooding situations:

Do not camp or park your vehicle along rivers, streams or washes, particularly during threatening conditions.

If flooding occurs, get to higher ground. Stay away from areas subject to flooding like low spots, valleys, canyons or washes.

Avoid areas already flooded, especially if the water is flowing fast. Never try to cross flowing streams.

NEVER let your children play near flooded streams, storm drains, bayous, roads, rivers or creeks.

NEVER drive through flooded roadways. Road beds or bridges may be washed out under flood waters.

Never drive around the barriers that warn you the road is flooded.

Be especially cautious at night when it is harder to recognize flood dangers.

Always remember, if youre in doubt Turn Around Dont Drown.

And visit flash.org for more information about strengthening your home and safeguarding your family from disaster.

FLASH Card: Tsunami

Be on guard...

Be on guard for strong earthquakes. Earthquakes can trigger a tsunami. Do not stay in low-lying coastal areas after a strong earthquake has been felt. Tsunamis can impact every coastline in the Pacific, Atlantic and Gulf of Mexico.

Listen to official emergency management or law enforcement instructions on radio and television stations. Monitor NOAA weather radio with a tone-alert feature. The tone-alert feature will warn you of potential danger even if you are not listening to local radio and television stations.

Tsunami warnings

A tsunami watch means a tsunami is possible and you should be prepared; a tsunami warning is issued when a tsunami is imminent and you should move to high ground immediately. If you hear a loud roar, move away from the sound. Tsunami waves can produce a very loud sound.

When there is little time, consider vertical evacuation. The upper stories of tall, multi-storied, concrete buildings like hotels can provide refuge if there is no time to quickly move inland or to higher ground.

Never go down to the beach to watch for tsunamis. If you can see the wave you are too close to escape it - tsunamis move much faster than a person can run.

Remember a tsunami is a series of waves and the first wave may not be the largest wave. The danger can last for several hours after the arrival of the first wave. Do not go near the beach until the authorities advise it is safe.

Have a plan

Develop a family emergency plan. Have a family meeting place that is an elevated inland location. Ask a relative or friend outside your community to be the emergency contact.

If you are visiting an area at-risk for tsunamis, check with the hotel, motel or campground operator for tsunami evacuation information and how you would be warned. Know designated emergency escape routes before a warning is issued.

FLASH Card: Turn Around, Don't Drown

Turn Around, Don't Drown

More deaths occur due to flooding each year than from any other thunderstorm or hurricane related hazard. Many of these casualties are a result of careless or unsuspecting motorists who attempt to navigate floodedroads. The National Weather Service now warns anyone who comes to a flooded roadway, "Turn around... don't drown!"

Follow these safety rules:

If flooding occurs, get to higher ground. Stay away from flood-prone areas, including dips, low spots, valleys, ditches, washes, etc.

Avoid flooded areas or those with rapid water flow. Do not attempt to cross a flowing stream. It takes only six inches of fast flowing water to sweep you off your feet.

Don't allow children to play near high water, storm drains or ditches. Hidden dangers could lie beneath the water.

Flooded roads could have significant damage hidden by floodwaters. NEVER drive through floodwaters or on flooded roads. If your vehicle stalls, leave it immediately and seek higher ground. Water only two feet deep can float away most automobiles.

Do not camp or park your vehicle along streams and washes, particularly when threatening conditions exist.

Be especially cautious at night when it is harder to recognize flood dangers.

Monitor NOAA Weather Radio or your local media for vital weather related information.

More information on flood safety is available through the National Weather Service, www.noaa.gov/floods.htm, or the Federal Alliance For Safe Homes, www.flash.org. Call our toll-free help desk at 1-877-221-SAFEor email flash@flash.org.

Flood Insurance -- How to Purchase

Who Can Have Flood Insurance

Flooding causes more than 90 percent of all disaster-related property damage in the United States but most homeowner policies do not cover flood damage. Because of this, homeowners need flood insurance -- a special policy backed by the federal government, with cooperation from local communities and private insurance companies. About 200 insurance companies,

possibly including the company that already handles your homeowners insurance, write and service flood insurance policies for the government, which finances the program through premiums. Although flood insurance is relatively inexpensive, most Americans neglect to purchase protection.

National Flood Insurance Program

Only about one-quarter of the homes in areas most vulnerable are insured against flood loss, according to the Federal Insurance Administration (FIA). In those areas, flooding is 26 times more likely to occur than a fire during the course of a typical 30-year mortgage. More than 19,000 communities have agreed to stricter zoning and building measures to control floods, according to the Federal Emergency Management Agency (FEMA). Residents in these communities are entitled to purchase flood insurance through the National Flood Insurance Program (NFIP), a program FEMA oversees.

30-day Waiting Period

An important fact to know is that a flood insurance policy does not take effect until 30 days after you purchase it. So, if the weather forecast announces a flood alert for your area and you run to purchase coverage, it's already too late. You will not be insured if you buy a policy a few days before a flood. To see if your community participates in NFIP and for more information about federal flood insurance, visit www.fema.gov/nfip.

National Flood Insurance Program: Frequently Asked Questions

Q&As On the National Flood Insurance Program

Who do I go to first for help with questions about my NFIP policy?

You should call your insurance agent or insurance company first.

Does my NFIP Policy cover all the buildings on my property?

The Standard Flood Insurance Policy provides coverage for one building per policy. The only exception is 10% coverage for a detached garage. However, the total payment for flood damage to the detached garage and the house together cannot exceed the building policy limit. For coverage to apply, the garage can only be used for parking and storage. Any other use would void this coverage, i.e. if the garage has a workshop, the coverage would not apply. All other buildings on the premises need separate coverage. Policy limits for residential properties is $250,000 and $500,000 for commercial properties.

Are the contents of my home covered under my NFIP Policy?

Contents are not automatically included. If contents coverage is desired a specific amount must be named and a separate premium charged, but it doesnt need to be a separate policy. Contents coverage limits are $100,000 for residential policies and $500,000 for commercial policies.

What is Actual Cash Value?

Actual Cash Value (ACV) is the cost to repair or replace an insured item of property at the time of the loss, less physical depreciation. The value of physical depreciation is based on the age and condition of the item. Personal property, i.e. contents, is always paid at ACV.

What is Replacement Cost Value?

Replacement Cost Value (RCV) is the cost to repair or replace an insured item of property at the time of the loss without a deduction for physical depreciation. RCV is available when the insured property is the primary residence and the amount of coverage is equal to 80% or more of the replacement cost of the building. RCV is also available for residential condominium buildings. There is no required amount of coverage, but residential condominium buildings not insured to 80% of replacement cost will experience a reduction in their claims payments.

Do I have to pay a deductible?

Yes, all policies have deductibles for both building and contents coverage (if contents coverage has been purchased).

I have a living area in my basement. Is that covered?

Strict exclusions of coverage apply in any basement. A basement is defined as any area that is below grade on all four sides. In some cases, sunken living rooms can be defined as a basement. Building coverage in basements is limited to systems that service the building, such as electrical boxes, heat pumps and air conditioners. Contents in basements are not covered with a few exceptions such as a washer, dryer, freezer and the food in it. Similar exclusions of coverage also apply in any enclosure below an elevated structure if the structure is Post-FIRM.

What does Post-FIRM mean?

FIRM stands for Flood Insurance Rate Map. Post-FIRM means built after the effective date of the initial Flood Insurance Rate Map for the community or December 31, 1974, whichever is later.

Does my NFIP Policy cover my additional living expenses when I cannot return home?

No, there is no coverage for Additional Living Expenses or Loss of Use or Business Interruption.

Does my NFIP Policy cover mold or mildew?

Damage from mold and/or mildew resulting from the after-effects of a flood is covered but each case is evaluated on an individual basis. Mold and/or mildew conditions that existed prior to a flooding event are not covered. After a flooding event, the policyholder is responsible for taking reasonable and appropriate mitigation actions to reduce and/or eliminate mold and/or mildew. Reasonable actions taken to mitigate mold and/or mildew are covered (for example, the use of responsible drying-out techniques or application of mildicide at a reasonable cost).

Does my NFIP Policy cover water backed up from the sewer?

Back up of water from sewers and drains are excluded, except when caused by a flood.

What is Increased Cost of Compliance, or ICC?

This coverage provides up to $30,000 to comply with the communitys floodplain management regulations when a building has been substantially damaged by flood and is in a designated floodplain.

Does my NFIP Policy cover landscaping or my deck?

No, there is no coverage for landscaping, trees, decks or outdoor furniture. Other exclusions are found in the Standard Flood Insurance Policy.

What is a Proof of Loss?

A Proof of Loss is a legal document that is your statement of the amount you are claiming under the policy. Under the NFIP policy, your Adjustor may prepare a proof of loss as a courtesy. However, you, the insured, are responsible for submitting either the Proof of Loss prepared by your Adjustor or, you may prepare your own. Generally, you must submit it to your insurance company within 60 days of when the damage occurred.

What do I do if I do not agree with my Adjustor?

You should work with your Adjustor as long as possible. Ask your Adjustor to work with your contractor if your disagreement involves the building claim. If you cannot agree with your Adjustor, ask for assistance from his supervisor. If you still cannot resolve your differences, contact your insurance company.

Animated How-To: Floods

Animated How-To's: Floods

Floods are one of the most powerful, deadly, and destructive natural disasters.

There are a number of relatively inexpensive steps you can take to protect your home and property before a flood strikes.

If you are building or retrofitting your home consider these recommendations:

Elevate your home

- Consider wet flood proofing An example of wet flood proofing is installing flood vents that create permanent openings in the foundations walls so water can flow through the structure.
- Dry flood proofing prevents floodwaters from entering the building. Install new brick veneer over asphalt coating and apply polyethylene film over existing walls.
- Construct non-supporting, break-a-way walls designed to collapse under the force of water without causing damage to the house or its foundation.

Additional Recommendations

Here are some additional recommendations to protect your home from floods. Some are simple and inexpensive; others require a professional contractor.

- Locate the main electric panel and elevate all electric outlets, switches, light sockets, baseboard heaters and wiring at least 12" above the projected flood elevation. In areas that could get wet, connect all receptacles to a GFI circuit to avoid the risk of shock or electrocution. Have electrical wiring done by a licensed electrician.
- Elevate the furnace, water heater, washer and dryer, outside air conditioning compressor, heat pump or package unit at least 12" on a base of masonry, concrete or pressure treated lumber.
- Anchor fuel tanks securely to the floor. Make sure vents and fill line openings are above projected flood levels.

- Install a floating floor drain plug at the current drain location. If the floor drain backs up, the float will rise and plug the drain. Also have a licensed plumber install an interior or exterior backflow valve to prevent floodwater causing sewage to back up and enter your home. As a last resort, use large corks or stoppers to plug showers, tubs or basins.

Get Flood Insurance

One of the most important things you can do to protect your home and family before a flood is to purchase a federal flood insurance policy. But don't wait until a flood is coming. It normally takes 30 days after purchase for flood insurance to go into effect.

Visit www.flash.org or call toll-free (877) 221-SAFE for more information about protecting your home from disaster.

BFE -- Know Your Base Flood Elevation

Find Out the Base Flood Elevation

The best way to prepare for a flood is in the planning stage of a new home. FLASH recommends an evaluation and inspection of your homesite and lot prior to construction to determine the flood zone and the Base Flood Elevation or BFE. The BFE refers to the elevation associated with the "100-year flood," or a flood with a 1% chance of occurrence in any given year. The "100-year flood" patterns form the basis for the National Flood Insurance Program rates and regulatory floodplain management.

Drains -- Inspecting

Check Drain Plug

Install a floating floor drain plug at the current drain location. If the floor drain pipe backs up, the float will rise and plug the drain.

Install a Sewer Backflow Valve

If flood waters enter the sewer system, sewage can back up and enter your home. To prevent this, have a qualified, licensed plumber install an interior or exterior backflow valve. Check with your building department for permit requirements.

If you are retrofitting a backflow value, check with your building department for permit requirements. Be sure to talk to a professional home builder, architect, contractor or building supply retailer for other backflow mitigation tips.

Electrical System -- Elevate

Elevate Your Electrical Panel

The main electric panel board (electric fuses or circuit breakers) should be at least 12" above the projected flood elevation for your home. The panel board height is regulated by code. All electrical work should be done by a licensed electrician.

You may also want to elevate electric service lines (at the point they enter your home) at least 12 inches above the projected

flood elevation.

Elevate Electrical Outlets

Consider elevating all electric outlets, switches, light sockets, baseboard heaters and wiring at least 12" above the projected flood elevation for your home.

In areas that could get wet, connect all receptacles to a ground fault interrupter (GFI) circuit to avoid the risk of shock or electrocution. Have electrical wiring done by a licensed electrician.

Emergency Access to Your Home

Emergency Access

Identify your home with legible and clearly marked street name and house number so emergency vehicles can rapidly find the location of the emergency.

Include a driveway that is at least 12 feet wide with a vertical clearance of 15 feet -- to provide access to emergency equipment.

FLASH Card: Bolsas de arena (Sandbags)

Bolsas de arena

Las bolsas de arena desviarán el agua y la basura arrastrada de las casas y otras estructuras, siempre y cuando estén llenas y mantenidas correctamente.

Llenado:

Llene las bolsas por la mitad.

Use arena si está disponible, de lo contrario use la tierra local.

Dobla la parte superior de la bolsa y apóyela sobre el lado doblado.

Colocación:

Apile las bolsas de arena con cuidado.

Limite la colocación a tres capas, salvo que se utilice un edificio como respaldo o se las coloque en forma piramidal.

Apisone cada bolsa en su lugar, completando cada capa antes de comenzar con la siguiente.

Despeje un sendero entre edificios para que la basura pueda fluir.

Coloque un folio plástico entre el edificio y las bolsas para controlar el flujo y evitar que el agua se filtre a través de las puertas deslizantes de vidrio.

Limitaciones:

Las bolsas de arena no impedirán que se filtre el agua.

Las bolsas de arena se deterioran cuando se mojan y secan continuamente durante varios meses. Si se las coloca demasiado temprano, pueden no ser eficaces cuando se las necesite.

Las bolsas de arena protegen contra pequeñas cantidades de agua hasta 60 centímetros (dos pies).

La protección contra caudales mayores exige un sistema más permanente contra inundaciones.

NOTA: Consulte a su departamento local de protección ambiental antes de decidir el uso de bolsas de arena. Si se las expone a aguas contaminadas, pueden representar un peligro ambiental y requerir de un manejo especial.

Disponemos de más información sobre prevención de inundaciones a través del programa educativo Proyecto de Seguridad. Llame a nuestra mesa de ayuda gratuita al 1-877-221-SAFE, correo electrónico flash@flash.org o ingrese en www.blueprintforsafety.org.

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Teléfono gratuito 1-877-221-SAFE

FLASH Card: Disabilities

People with Disabilities

People with disabilities often require assistance and additional lead time in order to prepare for a disaster. The following list, while not exhaustive, provides some practical tips for those with special needs.

- Establish a personal support network. This network of friends, family and neighbors can assist in disaster preparations and getting you to a safe place.
- Post Emergency Instructions on the refrigerator to include medication dosages, necessary equipment and emergency contacts.
- Register with local emergency management and fire departments.
- Identify multiple evacuation routes at home and at work. Ask your employer to include and test these plans.
- Carry with you at all times emergency health information and emergency contacts. A medical alert tag or bracelet to identify your disability can prove helpful.
- Have an alternate means of communication, like a dry erase board or writing tablet and markers.
- When calling 911, tap the space bar to engage the TDD system.
- Install fire safety devices in the home, such as fire extinguishers and smoke alarms with a vibrating pad or flashing light. Consider also installing an alarm with strobe light outside the home to alert neighbors. Test alarms and extinguishers regularly and replace smoke alarm batteries every six months.
- Keep a flashlight, whistle or bell handy to signal whereabouts to others.
- Stock emergency supplies, such as batteries, blankets, cash, non-perishable foods, medications, water and a weather radio.

For more information on how to prepare children with special health care needs, please visit www.aap.org/advocacy/emergprep.htm.
For information on protecting your service animal in an emergency, please visit www.disabilitycentral.com.

FLASH Card: Flooding Safety

Flooding Safety

More deaths occur due to flooding each year than from any other thunderstorm or hurricane related hazard. Many of these casualties are a result of careless or unsuspecting motorists who attempt to navigate flooded roads. The National Weather Service now warns anyone who comes to a flooded roadway, Turn around& dont drown!TM

Follow these safety rules:

- If flooding occurs, get to higher ground. Stay away from flood-prone areas, including dips, low spots, valleys, ditches, washes, etc.
- Avoid flooded areas or those with rapid water flow. Do not attempt to cross a flowing stream. It takes only six inches of fast flowing water to sweep you off your feet.
- Dont allow children to play near high water, storm drains or ditches. Hidden dangers could lie beneath the water.
- Flooded roads could have significant damage hidden by floodwaters. NEVER drive through floodwaters or on flooded roads. If your vehicle stalls, leave it immediately and seek higher ground. Water only two feet deep can float away most automobiles.
- Do not camp or park your vehicle along streams and washes, particularly when threatening conditions exist.
- Be especially cautious at night when it is harder to recognize flood dangers.
- Monitor NOAA Weather Radio or your local media for vital weather related information.

More information on flood safety is available through the National Weather Service, www.noaa.gov/floods.htm.

FLASH Card: Floods

Floods

Flooding causes more than 90 percent of disaster-related property damage in the U.S. each year. Preparation is the key to surviving a flood and reducing property damage.

Insurance

- Most homeowner policies do not cover flood damage. To determine your flood risk, contact your local growth

management, building department or visit www.fema.gov/nfip.

- Remember that there is a 30-day waiting period before flood policy coverage goes into effect.
- Take inventory of all personal items (including model types, serial numbers, pictures and descriptions). Place all important documents in a water resistant/fire proof box.
- You may need NFIP Flood Insurance even if you do not reside in a high risk flood zone. Contact your local agent or private insurance company today.

Home

- Elevate your utilities (e.g. electrical service panel and disconnect(s), air conditioner, water heater, etc.) two to three feet above the base flood elevation.*
- If you have a fuel tank, anchor it to a large concrete slab whose weight can resist the force of floodwaters and flotation.
- Install sewer backflow valves to prevent sewage entry into your home during flooding.*

Safety

- Obtain a NOAA Weather Radio and pay attention to the latest information when unusually heavy rains occur or are forecast to occur.
- Pay attention to flash flood and river flood watches and warnings issued by the National Weather Service.

*Only a professional licensed contractor should carry out changes that affect the structure of your home or its electrical wiring and plumbing.

FLASH Card: Inundaciones (Flood)

Inundaciones

Las inundaciones causan más del 90 por ciento de los daños a la propiedad vinculados a desastres en los EE.UU. cada año. La clave para sobrevivir a una inundación y reducir los daños a la propiedad es la preparación

Seguro

La mayoría de las pólizas para propietarios no cubren los daños por inundaciones. Para determinar su riesgo de inundaciones, contacte a su departamento local de construcciones y planeamiento o visite www.fema.gov/nfip.

Recuerde que existe un período de espera de 30 días antes de que la cobertura de la póliza por inundaciones entre en vigencia.

Realice un inventario de todos sus efectos personales (incluyendo modelos o tipos, números de serie, fotografías y descripciones). Coloque todos los documentos en una caja a prueba de agua y resistente al fuego.

Puede necesitar un seguro contra inundaciones del NFIP (Programa Nacional de Seguros contra Inundaciones) aún cuando no resida en una zona de alto riesgo de inundaciones. Contacte hoy a su agente o compañía aseguradora privada.

Hogar

Instale sus servicios (por ej. Tablero de energía eléctrica e interruptores, equipo de aire acondicionado, caldera, etc.) 60 a 90 cm (2 a 3) sobre el nivel de inundación de la base.*

Si tiene un tanque de combustible, ánclelo a una losa de concreto amplia, cuyo peso pueda resistir la fuerza de las aguas crecidas y la flotación.

Instale válvulas de retorno en la cloaca para impedir que las aguas servidas entren en su casa durante las inundaciones.*

Seguridad

Sintonice la NOAA Weather Radio (Radio del Tiempo de la NOAA) y preste atención a las últimas informaciones cuando ocurren o están pronosticadas lluvias extraordinarias.

Preste atención a las observaciones sobre inundaciones repentinas, el caudal de los ríos y las advertencias emitidas por el National Weather Service (Servicio Nacional de Meteorología).

*Sólo un contratista profesional matriculado debe llevar a cabo cambios que afecten la estructura de su casa o sus instalaciones eléctrica y de plomería.

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Para obtener más información sobre el Programa Proyecto de Seguridad llame a nuestra mesa de ayuda gratuita al 1-877-221-SAFE, correo electrónico flash@flash.org o ingrese en www.blueprintforsafety.org.

FLASH Card: La Radio del Tiempo de la NOAA (NOAA Weather Radio)

La Radio del Tiempo de la NOAA (NOAA Weather Radio)

La Radio del Tiempo de la NOAA (NWR) es la Voz del National Weather Service (Servicio Nacional de Meteorología). Proporciona información crítica sobre el clima, que salva vidas, cuando está ubicada apropiadamente dentro del hogar.

Prestaciones de la NWR

Difunde observaciones, alertas y consejos en forma inmediata desde su oficina local del National Weather Service.

Opera sin publicidad comercial, diariamente durante las 24 horas.

Debe incluir capacidad para siete frecuencias, tecnología SAME (Specific Area Message Encoder) (Codificador de mensajes para

un área específica) y respaldo por pilas.

NWR está disponible en las siguientes frecuencias en megahertz:
162.400, 162.425, 162.450, 162.475, 162.500, 162.525 y 162.550.

Ubicación correcta de una NWR en su casa

La mejor recepción se obtiene cuando se la ubica cerca de una ventana.

Se puede llegar a necesitar una antena exterior si usted se encuentra a más de 48 km (30 millas) del transmisor.
Se pueden conectar luces estroboscópicas, buscapersonas, computadoras e impresoras de texto para los incapacitados visuales o auditivos.

Sitios Web útiles

Ingrese en www.srh.noaa.gov/ftproot/msd/nwr/srnnwr.html o www.nws.noaa.gov/nwr para encontrar el transmisor NWR más próximo.

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FLASH Card: Personas con discapacidades (People With Disabilities)

Personas con discapacidades

Con frecuencia, las personas con discapacidades necesitan ayuda y un poco más de tiempo que los demás para prepararse para un desastre. La siguiente lista, si bien no es exhaustiva, contiene algunos consejos prácticos para quienes tienen necesidades especiales.

Cree una red de apoyo personal. Esta red de amigos, familiares y vecinos puede ayudarlo a hacer los preparativos para casos de desastre y a llevarlo a un lugar seguro.

Adhiera al refrigerador Instrucciones para casos de Emergencia, lo que incluye dosis de medicamentos, el equipo necesario y contactos de emergencia.

Inscríbase en los departamentos locales de bomberos y manejo de emergencias.

Identifique distintas rutas de evacuación en su casa y en el trabajo. Pídale a su empleador que incluya y evalúe estos planes.

Lleve consigo en todo momento información de emergencia sobre su salud y contactos para casos de emergencia. Puede resultar útil llevar un brazalete o una etiqueta de alerta médico para identificar su discapacidad.

Tenga a mano un medio alternativo de comunicación, como una pizarra blanca o un bloc de papel y marcadores.

Si llama al 911, golpee suavemente la barra espaciadora para utilizar el servicio de teléfono de texto.

Instale dispositivos de seguridad contra incendios en su casa, como extinguidores de incendios y detectores de humo con almohadilla vibratoria o luz destellante. Considere también la posibilidad de instalar una alarma con luz estroboscópica en el exterior de su casa para alertar a los vecinos. Pruebe las alarmas y los extinguidores con regularidad y reemplace las baterías de los detectores de humo cada seis meses.

Tenga a mano una linterna, un silbato o una campanilla para que los demás puedan darse cuenta de dónde está.

Abastézcase de suministros de emergencia, como pilas, frazadas, dinero en efectivo, alimentos no perecederos, medicamentos, agua y un receptor de radio para sintonizar la radio del tiempo.

Para obtener más información sobre cómo preparar a los niños con necesidades especiales de cuidado de la salud, visite www.aap.org/advocacy/emergprep.htm, por favor. Para obtener información sobre cómo proteger a su animal de asistencia en una emergencia, visite www.disabilitycentral.com, por favor.

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www.flash.org Teléfono gratuito: 1-877-221-SAFE

FLASH Card: Pet Safety

Hurricane Preparation for Pets

Hurricane season is June 1 through November 30. The Humane Society and FLASH are urging pet owners to ACT NOW to properly prepare pets in the
likely case of a hurricane.

Pet Owners have three options in the event of a hurricane:

- Keep your pet with you at a secure, storm-prepared location (Red Cross shelters do not accept pets).
- Take your pet with you to a friends or family members house or to a hotel in a safe zone. This should be prearranged to avoid surprise and confusion.
- Leave your pet with a friend in a safe zone or board it at a veterinary clinic or kennel.

All pet boarding facilities require up-to-date vaccinations and proper identification.

- Update your pets vaccinations.
- Purchase tags and have your pet implanted with a microchip (tags and microchips used together are the most effective way of identifying pets).
- Carry a current picture of you with your pet and its medical records with you at all times.

Following is a list of supplies to have prepared for your pet:

- Portable carrier (large enough for the pet to stand up and turn around in)
- Extra leash and collar
- Extra identification tag
- Pet food at least a two-week supply of dry food in water-tight container or canned food (manual can opener needed)
- Water at least a two-week supply of clean water large dogs need one gallon per day
- Up-to-date health records
- Medications flea and tick preventative and two-month supply of heartworm preventative medication
- Litter/newspapers
- Toys and treats
- Towels
- First aid supplies
- Recent photo of you with your pet

FLASH Card: Sandbags

Sandbags

Sandbags will redirect storm water and debris flows away from homes and other structures, provided the sandbags are properly filled and maintained. Sandbags usually last for only one year.

Filling:

- Fill sandbags one-half full.
- Use sand if readily available, otherwise, use local soil.
- Fold top of sandbag down and rest bag on its folded top.

Placing:

- Take care in stacking sandbags.
- Limit placement to three layers, unless a building is used as a backing or sandbags are placed in a pyramid.
- Tamp each sandbag into place, completing each layer prior to starting the next layer.
- Clear a path between buildings for debris flow.
- Lay a plastic sheet in between the building and the bags to control the flow and prevent water from seeping into sliding glass doors.

Limitations:

- Sandbags will not seal out water.
- Sandbags deteriorate when exposed to continued wetting and drying for several months. If bags are placed too early, they may not be effective when needed.
- Sandbags are for small water flow protection up to two feet. Protection from larger flow requires a more permanent flood prevention system.

NOTE: Consult your local environmental protection department before disposing of used sandbags. Sandbags exposed to contaminated floodwaters may pose an environmental hazard and require special handling.

More information on flood prevention is available through the Blueprint for Safety educational program. Call our toll-free help desk at 1-877-221-SAFE, email flash@flash.org or log on to www.blueprintforsafety.org.

FLASH Card: Seguridad en caso de inundación (Flood Safety)

Seguridad en caso de inundación

Cada año se producen más muertes debido a inundaciones que a cualesquier otro peligro relacionado con temporales o huracanes. Muchas de estas víctimas son conductores descuidados o confiados que intentan pasar por calles anegadas. El National Weather Service (Servicio Nacional de Meteorología) advierte ahora a cualquiera que se acerque a una carretera inundada, Turn around& dont drown!TM (¡Dé la vuelta... no se ahogue!TM)
Siga estas reglas de seguridad:

Si se produce una inundación, diríjase a un terreno elevado. Manténgase alejado de zonas anegadizas, incluyendo depresiones, puntos bajos, valles, canaletas, desagües, etc.

Evite las zonas inundadas o aquellas con corrientes de agua rápidas. No intente cruzar las corrientes de agua. Sólo son necesarios 15 cm (6 pulgadas) de aguas rápidas para hacerle perder contacto con el suelo.

No permita que los niños jueguen cerca de aguas profundas, bocas de tormenta o desagües. El agua puede ocultar peligros.

En las calles inundadas, el agua puede esconder importantes daños, NUNCA conduzca a través de zonas o calles anegadas. Si su vehículo se detiene, abandónelo de inmediato y busque un terreno más elevado. Sesenta centímetros (dos pies) de agua son suficientes para llevarse a la mayoría de los automóviles.

No acampe ni estaciones su vehículo junto a corrientes de agua y desagües, especialmente cuando existen condiciones de peligro.

Sea especialmente cauto de noche, cuando es más difícil reconocer los peligros de inundación.

Sintonice la NOAA Weather Radio (Radio del Tiempo de la NOAA) o su medio local para escuchar información vital sobre el tiempo.

Se puede obtener más información sobre seguridad en caso de inundación a través del National Weather Service, www.noaa.gov/floods.htm, o la Federal Alliance For Safe Homes (Alianza Federal para Hogares Seguros), www.flash.org.

Llame a nuestra mesa de ayuda gratuita al 1-877-221-SAFE o envíe un correo electrónico a flash@flash.org.
¡Proteja su hogar en un FLASH con la Federal Alliance for Safe Homes!

Para obtener más información sobre el Programa Proyecto de Seguridad llame a nuestra mesa de ayuda gratuita al 1-877-221-SAFE, correo electrónico flash@flash.org o ingrese en www.blueprintforsafety.org.

Flood Barrier Levee -- How to Build One

Barriers Against Floodwaters

More extensive flood prevention means constructing barriers to prevent floodwaters from entering your home. This process involves building a levee out of compacted earthen structure or engineering a structure out of concrete or masonry.

The Advantages of a Levee or Floodwall

The advantages of a flood barrier include:

No significant changes to your home.
The home can be occupied during construction.
Levees or floodwalls reduce the risk of flood damage to your home.

Flood Map -- How to Get One

How Do I Find Them?

Flood maps are usually kept on file at your local county courthouse, municipal office or library. Once you have located the maps for your area, be sure to record the panel number on each map should you need to obtain additional information from the Federal Emergency Management Agency (FEMA).

FEMA provides copies of flood maps for a nominal fee. To obtain a copy of the current flood map for a specific community, community status book and the Flood Insurance Manual, you can call FEMA's Map Service Center toll free at 1-800-358-9616 or write:

Map Service Center (MSC)
PO Box 1038
Jessup, MD 20794-1038

If you cannot locate flood maps in your area or you are having difficulty determining which maps to order, contact the Map Service Center for a flood map index.

Flood Risk -- How to Determine

Do You Know Your Flood Risk?

Call your local emergency management office, building department or floodplain management office for information about flooding. Ask to see a flood map of your community. There may be a projected flood elevation for your neighborhood. This information will help you determine how much water is likely to come in.

FEMA (www.fema.gov/nfip) provides copies of flood maps for a nominal fee. Flood maps are also kept on file at your local courthouse, municipal office or library.

A Flood Insurance Rate Map can also be especially useful in helping you identify existing flood hazards and the risks associated with those hazards. They can help homeowners and homebuilders determine the flood zone and Base Flood Elevation of an area. Flood Insurance Rate Maps may be available at your local municipal offices, libraries, or insurance agents.

Your Odds of Experiencing a Flood

The odds may seem like a million to one you'll ever experience serious flooding. But it happens more than you'd think. In fact, 90% of all presidentially-declared natural disasters involve flooding. Even minor flooding can mean major financial difficulties. Imagine just a few inches of floodwater invading your home. That's more than enough to destroy floors, damage walls, and ruin appliances - costing you thousands. Live in a high-risk area? You've got a 1 in 4 chance of flooding during the life of your 30-year mortgage. You're also five times more likely to experience flooding than fire. And you don't have to live in a high-risk zone to be a victim. Almost 25% of all flood claims come from low- to moderate-risk areas.

Flood Zone -- Which One Are You In?

Flood Zoning

The Federal Emergency Management Agency (FEMA) has placed more than 19,000 communities in the United States into a category of flood zones. Each community is able to participate in the agency's National Flood Insurance Program (NFIP), with premium rates determined by the risks of flooding. To indicate the risks in different parts of the country, FEMA has assigned a character from the alphabet to each zone. The most hazardous flood zones are V (usually first-row, beach-front properties) and A (usually, but not always, properties near water).

V Zones

According to FEMA and the National Flood Insurance Program, any building located in an A or V zone is considered to be in a Special Flood Hazard Area, and is lower than the Base Flood Elevation. V zones are the most hazardous of the Special Flood Hazard Areas. V zones generally include the first row of beachfront properties. The hazards in these areas are increased because of wave velocity - hence the V designation. Flood insurance is mandatory in V zone areas.

Living In a V Zone

If your home is in a "V" zone (this includes VE and V-1-V-30), adhere to the following recommendations:

The bottom of the lowest horizontal structural member of the lowest floor elevation must be at or above the Base Flood Elevation (BFE).

Enclosed areas below the lowest floor cannot be used for living space.

The building must be elevated on piles, piers, posts or column foundation.

Electrical, heating ventilation, plumbing, air conditioning equipment and other service facilities must be elevated to or above the

BFE.

A Zones

A zones - the next most volatile of the Special Flood Hazard Areas - are subject to rising waters and are usually near a lake, river, stream or other body of water. Flood insurance is mandatory in all A zones because of the high potential of flooding. A-zone maps also include AE, AH, AO, AR, and A99 designations, all having the same rates. The different A zones are named depending on the way in which they might be flooded.

Living in an A Zone

If your home is in an A zone (includes AE, A1-A30, AH, AO, AR) follow these important recommendations:

The lowest floor elevation must be at or above the Base Flood Elevation (BFE).

Enclosed areas below the lowest floor cannot be used for living space.

Electrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities must be elevated to or above the BFE.

Other Zones

X zones are minimal-risk areas where flood insurance is not mandatory. D zones are areas that have not been studied, but where flooding is possible. Flood insurance is available in participating communities.

Finding Your Zone Information

There are several ways to find out which zone applies to you. You can go to your town hall or city hall, where employees responsible for issuing building permits in your area have access to flood zone maps. If you are buying a home, your Realtor and your insurance agent should be able to help you. Also, you can order a flood map from the FEMA's Map Service Center for a nominal charge by calling (800) 358-9616 or by visiting the FEMA Web site at www.fema.gov.

Floodproofing -- Dry

What Is Dry Floodproofing?

Dry flood proofing prevents floodwaters from entering the building.

This can be achieved by installing new brick veneer over asphalt coating or by applying polyethylene film over existing walls.

Construct non-supporting, break-a-way walls designed to collapse under the force of water without causing damage to the house or its foundation.

Detailed information about flood resistant construction techniques is available from the Federal Emergency Management Agency (FEMA) publication #312 Homeowner's Guide to Retrofitting: Six Ways to Protect Your House from Flooding and Publication #55 Coastal Construction Manual --both available at www.fema.gov.

Floodproofing -- Wet

What Is Wet Floodproofing?

This procedure makes uninhabited parts of your home resistant to flood damage when water is allowed to enter during flooding. An example of wet floodproofing is to install flood vents, creating permanent openings in the foundation walls.

This retrofit requires at least two vents on different walls. The size of the vents must be 1 square inch per square feet of enclosed floor area. For example, a 1,000 square foot house would require 7 square feet of flood vents.

The advantage of wet floodproofing are that it is less costly than other retrofits, no additional land is required and it does not affect the appearance of the house.

Get More Information

Detailed information about flood resistant construction techniques is available from FLASH, Inc. at BlueprintforSafety.org.

Additional information is available from the Federal Emergency Management Agency's (FEMA) publication #312 Homeowner's Guide to Retrofitting: Six Ways to Protect Your House from Flooding and Publication #55 Coastal Construction Manual --both available at www.fema.gov.

Fuel Tank -- Anchoring

Anchor Your Fuel Tank

A fuel tank can tip over or float in a flood, causing fuel to spill or catch fire. Cleaning up a house that has been inundated with flood waters containing fuel oil can be extremely difficult and costly.

Fuel tanks should be securely anchored to the floor. Make sure vents and fill line openings are above projected flood levels.

Propane tanks are the property of the propane company. You will need written permission to anchor them. Ask whether the company can do it first.

Make sure all work conforms to state and local building codes.

Major Appliances -- Elevating

Elevate Washer and Dryer

For protection against shallow flood waters, the washer and dryer can sometimes be elevated on masonry or pressure-treated lumber at least 12" above the projected flood elevation. Other options are moving the washer and dryer to a higher floor, or building a floodwall around the appliances.

Elevate the Furnace, Water Heater and AC

The furnace and water heater can be placed on masonry blocks or concrete at least 12 above the projected flood elevation, moved to inside a floodwall or moved to a higher floor.

Furnaces that operate horizontally can be suspended from ceiling joists if the joists are strong enough to hold the weight. Installing a draft-down furnace in the attic may be an option if allowed by local codes. Some heating vents can be located above

the projected flood elevation.

Outside equipment

Outside air conditioning compressors, heat pumps or package units (single units that include a furnace and air conditioner) can be placed on a base of masonry, concrete or pressure-treated lumber. All work must conform to state and local building codes.

Sandbags -- Making and Using Them

Making a Sand-Bag Barrier

Sandbags can be useful in redirecting storm water and debris flows away from your home. But be sure that the sandbags are properly filled and maintained.

Here's how: Fill sandbags one-half full. Use sand if readily available, otherwise use soil. Fold the top of sandbag down and rest the bag on its folded top. Take care in stacking the sandbags. Limit placement to three layers, unless a building is used as a backing or sandbags are placed in a pyramid. Tamp each sandbag into place, completing each layer before you begin a new layer. Clear a path between buildings for debris flow. Lay a plastic sheet in between the building and the bags to control the flow and prevent water from seeping into sliding glass doors.

What to Expect

There are limits to what sandbags can do, so remember: Sandbags will not seal out water. Sandbags deteriorate when exposed to continued wetting and drying for several months. If bags are placed too early, they may not be effective when needed. Sandbags are for small water flow protection -- up to two feet. Protection from larger flow requires a more permanent flood prevention system. Be sure to consult with your local environmental protection department before disposing of used sandbags. Sandbags that are exposed to contaminated floodwaters may pose an environmental hazard and require special handling.

Basic Flood Safety Rules

Get to High Ground

If flooding occurs, get to higher ground. Stay away fropm flood-prone areas, including dips, low spots, valleys, ditches, washes, etc.

If the waters start to rise in your home, retreat to the second floor, the attic and if necessary, the roof. Take dry clothing, a flashlight and a portable radio with you. Then wait for help.

Avoid Flooded Areas

Avoid flooded areas or those with rapid water flow. Do not attempt to cross a flowing stream. It takes only six inches of fast flowing water to sweep you off your feet.

Keep Children Safe

Don't allow children to play near high water, storm drains or ditches. Hidden dangers could lie beneath the water.

Beware of Flooded Roads

Flooded roads could have significant damage hidden by floodwaters. NEVER drive through floodwaters or on flooded roads. If your vehicle stalls, leave it immediately and seek higher ground. Water only two feet deep can float away most automobiles.

Do not camp or park your vehicle along streams or washes, particularly when threatening weather conditions exist.

Be especially cautious at night when it is harder to recognize flood dangers.

Disaster Kit -- Assembling

What To Plan For

You'll need to plan for two situations: Remaining in your home after a disaster or evacuating to a safer location.

Keep enough supplies at home for at least three days. Have a three-day supply of food and water on hand -- plan for one gallon of water per person per day and food that won't spoil. Don't forget a can opener (not an electric one) and emergency tools including a fire extinguisher, battery powered radio, flashlight, and plenty of batteries.

Disaster Supply Checklist

Be sure to gather the following items to ensure your family's basic comfort and well-being in case of evacuation.

Cash -- Banks and ATMs may not be open or available for extended periods.

Water -- at least one gallon per person for three to seven days.

Food -- at least enough for three to seven days, including: Non-perishable packaged or canned food and juices, food for infants or the elderly, snack food, non-electric can opener, vitamins, paper plates, plastic utensils.

Radio -- battery powered and NOAA weather radio.

Blankets, pillows etc.

Clothing -- seasonal, rain gear/ sturdy shoes.

First Aid Kit -- medicines, prescription drugs.

Special items -- for babies and the elderly.

Toiletries -- hygene items, moisture wipes.

Flashlight and batteries.

Keys.

Toys, books, games.

Store important documents in a waterproof container: insurance papers, medical records, bank account numbers, Social Security cards.

Tools.

Vehicle with full tank of gas.

Pet care items: Proper identification, immunization records, ample food and water, medicine, a carrier or cage, leash.

Keep Your Kit Fresh

Remember to replace stored food and water every six months. Also keep a supply of fresh batteries on hand. Remember to keep your most important up-to-date family papers in a fire and water proof container. These should include Social Security cards, deeds or mortgages, insurance policies, birth and marriage certificates, stocks, bonds, wills and recent tax returns.

The Importance of Water

Stocking an emergency water supply should be one of your top priorities. During an emergency drinking water should not be rationed, that's why it's crtical to have enough water on hand for yourself and your family.

While individual needs will vary depending on age, physical condition, activity, diet, and climate, a normally active person needs at least two quarts of drinking water daily. Children, nursing mothers, and people who are ill need more water. Very hot temperatures can also double the amount of water needed.

Because you will also need water for sanitary purposes, and possibly for cooking, you should store at least one gallon of water per person per day.

When storing water, use thoroughly washed plastic, fiberglass, or enamel-lined containers. Don't use containers that can break, such as glass bottles. Never use a container that has held toxic substances. Plastic containers, like soda bottles, are best.

Seal your water containers tightly, label them and store them in a cool, dark place.

It is important to change stored water every six months.

Disaster Safety for People with Disabilities

Safety Tips for People with Disabilities

If you have a disability or special need, you may have to take additional steps to protect yourself in an emergency. If you have family, friends or neighbors with special needs, help them with these extra precautions.

People with disabilities often require assistance and additional lead time in order to prepare for a disaster. The following list, while not exhaustive, provides some practical tips for those with special needs.

Establish a personal support network. This network of friends, family, and neighbors can assist in disaster preparations and getting you to a safe place.

Post Emergency Instructions on the refrigerator to include medication dosages, necessary equipment, and emergency contacts.

Register with local emergency management and fire departments.

Identify multiple evacuation routes at home and at work. Ask your employer to include and test these plans.

Carry with you at all times emergency health information and emergency contacts. A medical alert tag or bracelet to identify your disability can prove helpful.

Have an alternate means of communication, like a dry erase board or writing tablet and markers.

When calling 911, tap the space bar to engage the TDD system.

If you are mobility impaired and live or work in a high-rise building, have an escape chair.

If you live in an apartment building, ask the management to mark accessible exits clearly.

Keep extra wheelchair batteries, oxygen, catheters, medication, food for guide or hearing-ear dogs, or other items you might need. Also keep a list of the type and serial numbers of medical devices you need.

Stock additional emergency supplies, such as batteries, blankets, cash,medications, non-perishable foods, water and a weather radio.

Install fire safety devices in the home, such as fire extinguishers and smoke alarms with a vibrating pad or flashing light. Consider also installing an alarm with strobe light outside the home to alert neighbors. Test alarms and extinguishers regularly and replace smoke alarm batteries every six months.

Keep a flashlight, whistle, or bell handy to signal your whereabouts to others.

For more information on how to prepare children with special health care needs, visit www.aap.org/advocacy/emergprep.htm. For information on protecting your service animal in an emergency, visit www.disabilitycentral.com.

Evacuation -- Be Prepared

Have An Evacuation Plan

Discuss what to do in an evacuation with everyone in your family. Know where you will go if an evacuation is called. Review at least two exit routes from your home or neighborhood to a designated meeting place for your family. Don't forget about your pets. Pets are not allowed at most public shelters.

Pack Your Bags

After a disaster, you may not be able to return to your home for some time. Assemble everything your family will need in advance if you must evacuate your home. Pack one change of clothes and shoes per person as well as one blanket or sleeping bag per person. Write down the name of your insurance company, policy number, and telephone number and keep it in a safe place. Include an extra set of car keys, your credit cards, cash, and/or traveler's checks. Don't forget your important emergency contact numbers.

Don't Forget Personal Items

Create a first aid kit that includes your family's prescription medications. Pack sanitation supplies and special items for babies, senior citizens, or disabled family members. Bring extra eyeglasses and a favorite family board game to help pass the time away from home.

Evacuation -- If You Don't In Time

Move to Higher Ground

If the waters start to rise inside your house before you have evacuated, retreat to the second floor, the attic, and if necessary the roof. Take dry clothing, a flashlight and a portable radio with you. Then, wait for help. Don't try to swim to safety; wait for rescuers to come to you.

Evacuation -- If You Must Evacuate

Evacuate Immediately

Evacuate immediately if authorities tell you to do so. Listen to your battery-powered radio and follow the instructions of local emergency officials. Wear warm, dry clothing and sturdy shoes. Be sure to take your disaster supplies kit with you to a shelter or safe location. Use travel routes specified by local authorities -- don't use shortcuts.

Before You Go

If you have the time: Turn off water, gas and electricity before leaving. Post a note telling when you left and where you are going. Don't forget about your pets and be sure to lock your home.

Family Disaster Plan

Plan for the Unknown

Where will your family be when disaster strikes? At home? School? Work? Will you be able to contact each other? Will you know how to stay safe?

Disasters can strike at any time and without warning. Families can cope with disaster by preparing in advance. Building a family disaster plan is half the formula for disaster safety. The other is making sure your family knows the drill. Conduct a drill at least once a year to keep family members safety smart.

Create a Plan

Set a family meeting to talk about the types of disasters that could take place. Discuss the dangers of fire, severe storms, and terrorist acts. Plan to work together and share responsibilities as a team.

Review your property insurance coverage -- consider purchasing flood insurance. Keep an updated photo and/or video inventory of your personal belongings, furniture and children. Store a duplicate copy away from your home.

Purchase a NOAA weather radio and pay attention to the latest information from the National Weather Service.

Make sure the street number of your house is clearly visble from the road so emergency vehicles can easily locate you.

Set Up a Family Meeting Place

Pick two places to meet your family. Meet outside your home in case of a sudden emergency or at a friend's or neighbor's house in case you can't return home.

Be sure that everyone knows the address and phone number for each of your meet-up locations. It's best to write down the address and phone number and carry it with you.

Determine an Emergency Contact

Ask an out-of-town friend to be your emergency contact.

Family members should call this person and tell them where they are located.

Everyone must know this person's phone number.

Flood Warnings -- Understand Them

Flood Watch

Flash flooding or flooding is possible within the designated WATCH area. Be alert.

Flood Warning

Flash flooding or flooding has been reported or is imminent. Take necessary precautions at once.

Stream Advisory

Flooding of small streams, streets, and low-lying areas, such as railroad underpasses and urban storm drains, is occurring.

Flood Statement

Follow-up information regarding a flash flood/flood event.

Mobile and Manufactured Homes -- Safety Tips

Safety Tips for Manufactured Homeowners

Manufactured homeowners can be vulnerable to the threats of high winds from severe storms, tornadoes or a hurricane. Use the following safety tips to bolster home safety and help resist the threat of high winds.

Consider installing a longitudinal tie-down system at the front and rear of your home. These systems rely less on ground anchors and can help avoid the effects of rust and corrosion on wind uplift resistance.

Conduct an annual safety check-up and follow these tips:

Check for loose straps.

Make sure straps are properly aligned and not on an angle.
Check for proper number of tie-downs and for proper installation.
Check for proper installation of ground anchors and stabilizer plates.
Make sure that support piers are in contact with the frame.
Replace straps or ground anchors that show signs of corrosion or damage.

Have a plan where to go during a tornado threat -- a nearby pre-identified safe structure within walking distance.

Get Together With Neighbors

If you live in a mobile or manufactured home park and severe weather threatens, get together with other residents and the park owner/manager to designate safe shelter areas in the park or community.

NOAA Weather Radio

What is NOAA weather radio

Quickly changing weather demands careful attention. Keep your family safe by staying tuned to NOAA weather radio -- it provides critical life-saving weather information when placed properly in your home.

NOAA Weather Radio (NWR) is the "Voice of the National Weather Service," a nationwide network of radio stations broadcasting continuous weather information direct from a nearby National Weather Service office.

NWR broadcasts National Weather Service warnings, watches, forecasts, and other hazard information 24 hours a day commercial free.

Types of Information on NWR

Working with the Federal Communication Commission's (FCC) Emergency Alert System, NWR is an "all hazards" radio network, making it your single source for comprehensive weather and emergency information. NWR also broadcasts warning and post-event information for all types of hazards--both natural, (such as earthquakes and volcanic activity) and environmental, (such as chemical releases or oil spills).

Getting Better Reception

Reminders: Reception is usually best if placed near a window. An external antenna may be needed if you are located more than 30 miles from the transmitter. Strobe lights, pagers, computers, and text printers can be connected for the visually and hearing impaired. Remember power outages can occur at any time, so be sure to keep a battery-powered radio handy. Go to www.nws.noaa.gov/nwr to find the nearest NWR transmitter.

Pets -- Preparing and Protecting

Protect Your Pet

Pets need to be included in your family's disaster planning since they depend on you for their safety and well-being. It is important to consider and prepare for your pets before disaster strikes. Consider the following important steps:

Keep your pet with you at a secure, storm-prepared location. If you must evacuate, do not leave your pets behind. There is a chance they may not survive, or get lost before you return.

Find out before a disaster strikes which local hotels and motels allow pets and where pet boarding facilities are located.

With the exception of service animals like seeing eye dogs, pets are typically not permitted in emergency shelters.

Take your pet with you to a hotel, friend's or family member's house, veterinary clinic or kennel in a safe zone. This should be prearranged to avoid surprise and confusion.

Remember that most boarding facilities will require up-to-date vaccinations and proper identification.

Purchase tags or have your pet implanted with a microchip (tags and microchips used together are the most effective way of identifying pets).

Carry a current picture of you with your pet and its medical records with you at all times.

Following is a list of supplies to have prepared for your pet:

Portable carrier (large enough for the pet to stand up and turn around in)

Extra leash and collar

Extra identification tag

Pet food - at least a two-week supply of dry food in water-tight container or canned food (non-electric can opener needed)

Water - at least a two-week supply of clean water -- large dogs need one gallon per day

Up-to-date health records

Medications - flea and tick preventative and two-month supply of heartworm preventative medication

Litter/newspapers

Toys and treats

Towels

First aid supplies

Turn Around Don't Drown

Turn Around Don't Drown

More deaths occur due to flooding each year than from any other thunderstorm or hurricane related hazard. Many of these deaths are a result of careless or unsuspecting motorists who attempt to drive through flooded roads. FLASH and the National Weather Service warn anyone who comes to a flooded road to "Turn around ... don't drown!"

Avoid Flooded Roads

Flooded roads could have significant damage hidden by floodwaters. Never drive through floodwaters or on flooded roads. If your vehicle stalls, leave it immediately and seek higher ground. Water only two feet deep can sweep away most automobiles.

For more information about the "Turn around... don't drown" program visit www.srh.noaa.gov/srh/tadd/

After a Storm -- Important Tips

Important Tips After a Storm

Be careful to take certain precautions after the storm has passed. Damage to your home can have a dramatic emotional impact, and it's best to have a plan before the storm strikes for how to reenter your home. Having a plan, and being aware of certain risks, will minimize the threat of harm to you or your family.

Keep these tips in mind:

Stay turned to local news organizations, such as a radio or television station, for important announcements, bulletins, and instructions concerning the storm area, medical aid and other forms of assistance, such as food, water, and shelter.

Remember that you may not have immediate access to your home. Emergency rescue crews, power crews, and other personnel may be attending to special needs. Roads could be blocked, power lines could be down, and people may be trapped and in need of assistance.

Make sure that you have current identification. You may have to pass through identification check points before being allowed access to your home/neighborhood.

Avoid driving, as roads may be blocked. Avoid sight-seeing, or entering a storm ravaged area unnecessarily. You could be mistaken for a looter.

Avoid downed power lines, even if they look harmless. Avoid metal fences and other metal objects near downed lines.

DO NOT use matches in a storm ravaged area until all gas lines are checked for leaks. (Keep flashlights and plenty of batteries at hand.)

Avoid turning the power on at your home if there is flooding present. Have a professional conduct a thorough inspection first.

Consider having professionals/licensed contractors inspect your home for damage and help in repairs. This includes electricians, as well as professionals to inspect gas lines, remove uprooted trees, and check plumbing. Remember that downed or damaged trees can contain power lines that can be a hazard.

Use a camera or camcorder to record thoroughly any damage done to your home, before any repairs are attempted.

In certain areas, the flooding rains that accompany a storm can create pest problems. Be aware of potential pest problems in your area, such as mice, rats, insects or snakes, that may have "come with the storm".

Telephone lines will likely be busy in the area; use a phone only for emergencies.

Flooding brings with it the risk of waterborne bacterial contaminations. You should assume that the water is not safe and use properly stored water, or boil your tap water.

These are just a few ideas to be thinking about before and after a severe storm hits. Remember to keep your radio tuned to a station issuing emergency bulletins and updates with the latest information.

After the Storm - Returning Home A Checklist

After the Storm: Returning Home A Checklist

Hurricanes bring wind and water, often in the shape of floodwaters that overtake homes and damage property. It's critical to remove, dry, or replace wet building materials immediately.

Below is a simple checklist to help you get started on assessing damage in your home after the flood and begin taking charge of the cleanup.

Check for building stability before entry - sticking doors at the top may indicate a ceiling at risk of collapse.

Take pictures of damage throughout the building and around the property.

Assess stability of plaster and drywall - any bulging or swelling ceilings indicate damage that should be removed.

Press upward on drywall ceilings. If nail heads appear, drywall will need to be renailed but can be saved.

Clean and disinfect hot air, air conditioning, and ventilation ducts before use to avoid spread of airborne germs and mold spores.

Check appliance wires for missing or disintegrated wire insulation.

Ground all appliances with a three-pronged plugs.

Dry and oil all appliance motors.

Two weeks after flood water subsides, drain wells, sanitize well and water lines, and test water.

Check foundation for any loose or missing blocks, bricks, stones, or mortar.

Empty basement water 1/3 per day to avoid structural damage to foundation by rapid pressure change.

Test water before using.

Remove wet drywall and insulation to well above the high water mark. Clean, disinfect, and dry all wall cavities that came into contact with floodwater.

Use fans and sunlight to dry out interior spaces.

Remove all wet carpets, curtains, and fabrics. Allow to air dry completely.

Wash and disinfect all surfaces, including cupboard interiors, with a solution of 1/2 cup bleach to 2 gallons of water.

Clean and disinfect concrete surfaces using a mixture of TSP (trisodium phosphate) and water. Mix according to manufacturer's directions and apply to entire surface.

Control standing water and mosquitoes by applying a larvae control product to standing water or a film of vegetable oil to the surface.

Wash down and disinfect all doors. To avoid warping, dry all wood doors by removing from hinges, laying flat with wood shims between, and allowing to air dry completely. Remove all knobs and hardware first and disinfect.

Clean and disinfect windows, sills, and tracks.

Remove sliding doors and windows before cleaning and disinfecting the sliders and the tracks.

Remove wallpaper and coverings that came into contact with floodwaters. Don't repaint or repair until drying is complete and humidity levels in the home have dropped.

Destroyed Items -- Disposing Properly

Dispose of Wet Household Goods

Always dispose of any food that has come into direct contact with floodwaters. Although a few agencies will advise that some canned foods may be salvageable, if they appear dented or damaged, don't take chances - throw them away.

Attempting to dry out the contents of your home can take several weeks, and as long as the humidity remains high, microorganisms may continue to grow. If the house and its contents are not properly dried out, you may have problems with musty odors.

Sentimental Items

Although it may be difficult to throw certain items away, especially those with sentimental value, experts recommend that if you can't clean it, you should dispose of it, especially if it has come into contact with water that may contain sewage.

Flood Damage -- Cleaning Up

Safe Cleanup After a Flood

When you are preparing to clean after a flood, start with safety.

First make sure your building is safe to enter in regard to gas, electricity and building structure. Take extensive photos and video for insurance claims. Also, wear rubber boots, a safety mask and water proof gloves to handle contaminated items while photographing and cleaning. Wash your hands and face often - with soap and drinking-quality water.

Using Cleaning Products

Before using any product, read the label. It's important to understand that cleaners remove dirt, and disinfectants stop growth

of disease causing germs. NEVER mix chlorine bleach with ammonia. Together they make toxic fumes. Experts suggest combining chlorine bleach at a ratio of 1 part bleach to 10 parts water to disinfect furniture and rugs. Trisodium phosphate cleans hard surfaces, walls, woodwork, linoleum floors and tiles. Liquid cleaners can remove mud, silt and greasy deposits. Liquid detergents work on washable textiles. Use diluted bleach if item is safe for bleach.

Clean Up Your Home

Once you have cleared the standing water and removed the wet materials for further cleaning or disposal, you can begin the cleanup of the building itself.

Walls, floors, doors, closets, and shelves should all be thoroughly washed and disinfected. Many common household cleaners and disinfectants can be used for this process. In addition, if your ductwork has also been in contact with floodwaters, FEMA recommends that you also disinfectant and sanitize them as well.

Keep in mind that many household cleaning products contain substances that can either irritate some individuals or actually be toxic if used improperly. Make sure to always read and follow the manufacturer's instructions carefully. You can provide fresh air by opening windows and doors.

Remove Standing Water

Standing water is a perfect breeding ground for many microorganisms, including bacteria, viruses, and molds. They can cause disease or trigger allergic reactions in many individuals. Problems with infectious diseases can also occur if the floodwaters contain or have been contaminated with sewage. In addition, the longer the building materials stand in contact with water, the more structural damage that can potentially occur. Therefore, it is important to remove all standing water from the home as quickly as possible after a flood. Even when the flooding is due to a fairly clean source, such as rain water, the growth of these microorganisms can cause allergic reactions in sensitive individuals.

Protect Against Mold

Things You Can Do to Prevent Mold Growth

Maintain your AC system. Regular maintenance, such as making sure your drain lines are clear, is essential. If you notice condensation, your system may not be dehumidifying adequately, and you should consult a repair professional.

Don't turn off that AC! You're leaving town for a few weeks, so turn the AC off and save some money, right? In warm and humid environments, the AC does more than cool things down, it de-humidifies. In humid periods this is critical. Turn it up, but not off, and keep the fan on at all times. Mold does not like dry air that circulates! The relative humidity in your home should be between 30% and 50% at all times.

Check for leaks. Water can get into your home in a variety of ways-cracks in walls, gaps in window flashings, leaky roofs (especially around chimneys and vents), and of course, all of your plumbing systems. Inspect and repair these problems when they are first detected.

Act quickly. If you have a water leak, promptly shut off the water source and remove standing water and all moist materials. Consider contacting an emergency water removal company right away if you believe the amount of water may warrant expert attention. Remember to promptly report damage to your insurance company.

Ventilate. Mold may grow fast in humid air. Ventilate rooms with a fan, particularly bathrooms and kitchens, or crack open a window.

Check your washing machine hoses. Every day there are stressed, cracked washing machine hoses that fail and flood homes. Replace them if signs of wear are showing.

Replace that worn out water heater. These are infamous for flooding the inside of homes when a little rust on the side turns into a big leak. Replace it now if it is showing signs of deterioration. A drain pan will help properly dispose of any water from a leaky water heater.

Open the blinds. Mold likes dark, damp areas. Open the blinds and expose all of your rooms to sunlight periodically.

Close the shower curtain. A wet, bunched up curtain traps moisture. Building codes require fans in bathrooms for a reason; turn them on during and after bathing or showering.

Keep all clothing dry. A common mistake is to toss wet clothes in a hamper. Air-dry them first or wash right away.

Clean up and kill the mold. When it starts to grow, kill the mold immediately. Consult the EPA Mold Remediation guidelines.

Board up after wind damage. If your home sustains wind or other external damage from a storm, board it up promptly, especially during the rainy season. There are many emergency services that will do this for you. Materials such as plastic tarpaulins and plywood can be obtained at any local home improvement store.

Eliminate standing water. Adequate drainage outside, adjacent to, and especially under your home is essential. Standing water under a home can cause high humidity levels inside and cause floors to warp and buckle.

Moisture control is the key to mold control, according to the EPA. The EPA recommends keeping your household relative humidity between 30% and 50%, and points out that you can monitor this with a moisture or humidity meter, a small, inexpensive ($10-$50) instrument available at any home improvement stores.

Dry Everything

Drying everything in a home after a flood is imperative. Excess moisture in the home poses an indoor air quality concern for the following reasons: Areas with this high level humidity and moist materials provide an ideal environment for the growth of microorganisms, which could result in additional health hazards such as allergic reactions. Coming into contact with air or water that contains these microorganisms can make a person sick. Long-term high levels of humidity can foster growth of dust mites, which are a major trigger of allergic reactions and asthma. Although the drying process can take a long time, homeowners should be patient because it is necessary to keep a home's air quality healthy. Some household items may take longer than others to dry, such as upholstered furniture and carpets. To avoid growth of microorganisms, however, household items should be dried completely before they are brought back in the house.

Flood Damage -- Inspect Your Home

Inspecting Your Home

Experts from the Federal Emergency Management Agency (FEMA) advise homeowners to use caution when re-entering their homes and to do so only after floodwaters have receded. They recommend that you visually inspect your home for any damage that could make it unsafe to enter.

What to Watch Out For:

Inspect your home's foundation for cracks or other damage. Look for broken or leaking gas lines, flooded electrical circuits, or submerged furnaces or electrical appliances that may be fire hazards.

FEMA advises that fire is the most frequent hazard following floods. Check the electrical system for broken or frayed wires. If you see sparks or smell burning insulation, turn off the electricity at the main fuse box or circuit breaker.

Do not attempt to get to the circuit breaker or fuse box if you have to step in water. Call an electrician for assistance. Electrical equipment should be checked and dried before being returned to service.

Home Damage -- What to Do

If Your Home is Damaged or Destroyed

Homeowners should contact their insurance carrier as soon as possible to begin the claims process; however standard homeowner policies do not cover flood damage.

Housing Assistance

FEMA provides housing assistance for qualifying disaster victims. Homeowners within a designated federal disaster area may call toll-free 1-800-621-FEMA (3362) to register for assistance. Applicants should be prepared to describe losses and provide their Social Security number, financial information, and directions to the damaged property.

Mold -- Protecting Against

Things You Can Do to Prevent Mold Growth

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Mold -- Safe Clean Up

Safe Mold Clean Up

Mold growth is likely to occur in homes after flooding.
It's very important to clean and thoroughly dry any areas of the home that have gotten wet from floodwaters.

Mold - What Is It?
Molds are simple microscopic organisms found virtually everywhere, indoors and outdoors. When molds are present in large quantities they can cause allergic symptoms similar to those caused by plant pollen.

What Can I Save? What Should I Toss?
Porous materials can trap mold. Items such as paper, rags, wallboard, and rotten wood should be thrown out. Harder materials such as glass, plastic and metal can be kept after they are cleaned and disinfected.

Removing Moldy Materials

Wear a filter mask and gloves to avoid contact with the mold.

Remove porous materials (ex: ceiling tiles, Sheet-rock, carpeting, wood products.)

Carpeting can be a difficult problem - drying does not remove the dead spores. If there is heavy mold, disposal of the carpet

should be considered.

Allow areas to dry 2 to 3 days before replacing damaged materials

If Sheet-rock, or wallboard, is flooded, remove all Sheet-rock to at least 12 inches above the high water mark.

General Mold Clean-Up Procedures

Identify and correct the moisture source. Remove all water and fix any leaks before cleaning.

Clean, disinfect, and dry the moldy area.

Bag and dispose of any material that has moldy residue, such as rags, paper, leaves or debris.

Soap Cleanup

Wear protective gloves and a filter mask.

Use non-ammonia soap or detergent, or a commercial cleaner in hot water. Scrub the entire area affected by the mold.

Use a stiff brush or cleaning pad.

Rinse with clean water.

Disinfect Surfaces

Wear a filter mask and protective gloves when using disinfectants.

After thorough cleaning and rinsing, disinfect the area with a solution of 10% household bleach (1/4 cup bleach per gallon of water).

Never mix bleach with ammonia - the fumes are toxic!

Let disinfected areas dry naturally overnight to kill all the mold.

Be aware that exposure to mold can occur during cleanup.

To minimize exposure, consider using a breathing mask or respirator, wear rubber gloves and take breaks in a well-ventilated area.