

EXCERPTS FROM

2009

FLOODPLAIN MANAGEMENT IN ALABAMA



# Quick Guide

**Alabama Department of Economic and Community Affairs**

Office of Water Resources, Floodplain Management Branch

National Flood Insurance Program



## Why Do Communities Regulate the Floodplain?

- **To protect people and property.** Floodplain management is about building smart. It makes good sense. If we know part of our land will flood from time to time, we should be able to make reasonable decisions to help protect our families, homes, and businesses.
- **To make sure that Federal flood insurance and disaster assistance are available.** Federal flood insurance is available only in communities that agree to regulate floodplain development. Standard homeowners insurance does not cover flood damage. If your home or business is in the floodplain, and Federal flood insurance isn't available, then you can't get some types of Federal financial assistance. Home mortgages will be hard to find and you won't be able to get some types of State and Federal loans and grants.
- **To save tax dollars.** Every flood disaster affects your community's budget. If we build smarter in and near floodplains, we'll have fewer problems the next time the water rises. Remember, Federal disaster assistance isn't available for all floods. And even when the President declares a disaster, most of the time your community still has to pay a portion of the costs of evacuation, temporary housing, repair, and clean-up.
- **To avoid liability and lawsuits.** If we know an area is mapped as a floodplain, if we know people could be in danger, and if we know that buildings could be damaged, it makes sense to take reasonable protective steps when we develop and build.
- **To reduce future flood losses in Alabama.** Development that complies with the minimum floodplain management requirements is better protected against major flood-related damage.

## Flood Insurance: Property Owner's Best Protection

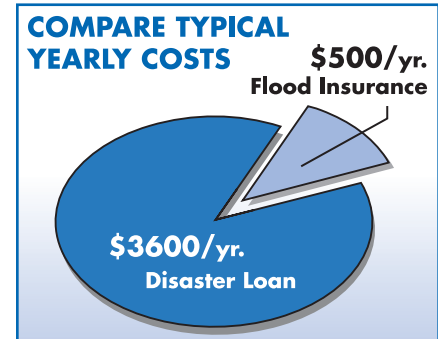
**Who needs flood insurance?** Federal flood insurance is required for all buildings in mapped Special Flood Hazard Areas (SFHAs) shown on FEMA's maps if they are financed by Federally-backed loans or mortgages. All homeowners, business owners, and renters in communities that participate in the NFIP may purchase Federal flood insurance on any building and its contents, even if outside of the mapped flood zone. If your home is in the mapped SFHA, you are five times more likely to be damaged by flood than by a major fire.

**Not in a mapped floodplain?** Unfortunately, it's often after a flood that many people discover that their home or business property insurance does NOT cover flood damage. Approximately 25% of all flood damage occurs in low risk zones, commonly described as being "outside the mapped flood zone."

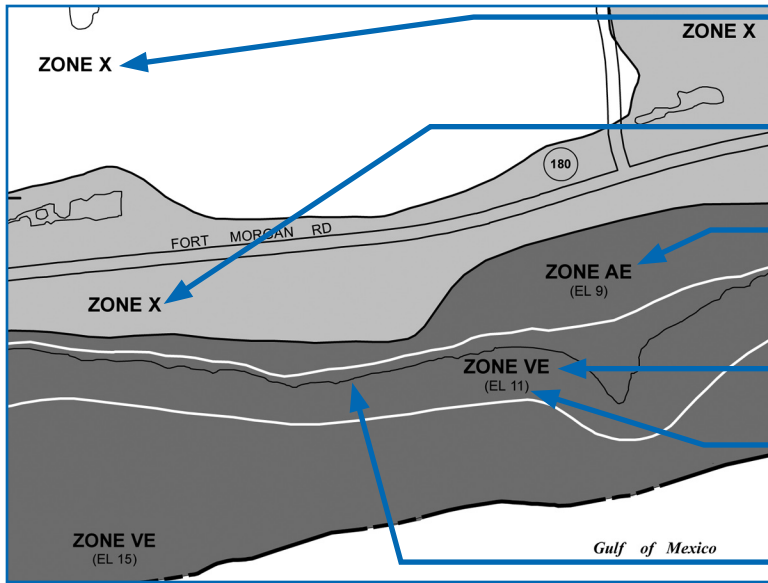
**Protected by a levee or dam?** Even if you live in an area protected by a levee or other flood control structure, there is a residual risk that those structures will be overtopped or fail. If your community's levee provides "100-year" flood protection, there is still a chance that a higher flood will cause flooding.

**What about disaster grants and loans?** Federal disaster grants do not cover most losses and repayment of a disaster loan can cost many times more than the cost of a flood insurance policy.

**Want to know more?** Learn more at [www.floodsmart.gov](http://www.floodsmart.gov). To purchase a policy, call your insurance agent. To get the name of an agent in your community, call the NFIP's toll free number (888) 356-6329.



## Flood Insurance Rate Map (Coastal)



- 1 **Unshaded Zone X** is the area of minimal flood risk outside the 500-year floodplain, formerly called Zone C.
- 2 **Shaded Zone X** is subject to flooding by the 0.2% annual chance (500-year) flood, formerly called Zone B.
- 3 **Zone AE** is subject to flooding by the base or 1% annual chance (100-year) flood, and waves less than 3 feet high, (formerly called Zones A1-A30).
- 4 **Zone VE** is where wave heights are expected to be 3 feet or more.
- 5 **Base Flood Elevation (BFE)** is the water surface elevation (in feet above the vertical datum shown on the map).
- 6 **Shoreline**



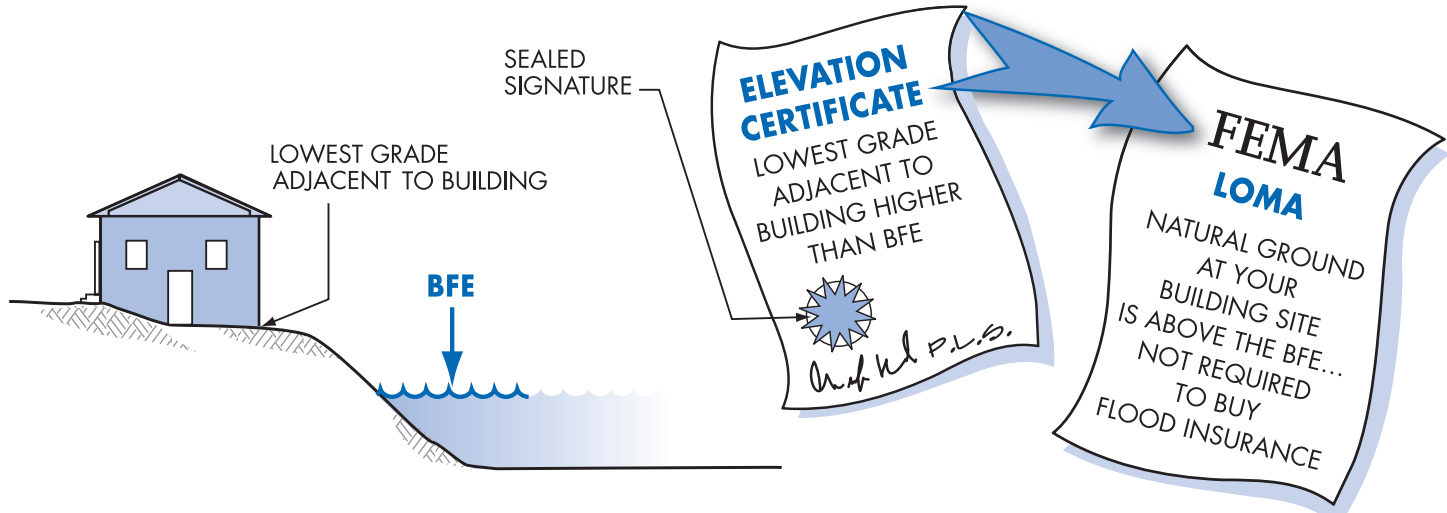
**Coastal Barrier Resources System (CBRS) Areas**



**Otherwise Protected Areas (OPA)**

In Coastal Barrier Resource System (CBRS) Areas, known as “CoBRA Zones”, and in Otherwise Protected Areas (OPAs) shown on the FIRM, NFIP flood insurance is not available for new or substantially improved structures built after the date the areas were identified.

## Is Your Building Site Higher than the BFE?



If your land is shown on the map as “in” the SFHA, but your building site is higher than the Base Flood Elevation (BFE)... get a Professional Land Surveyor or Civil Engineer to complete a FEMA Elevation Certificate. Submit a request for a Letter of Map Amendment to FEMA along with the EC to verify that your structure is above the BFE ([see page 22](#)). If FEMA approves your request, lenders are not required to have you get a flood insurance policy, although some lenders may still require it. Keep the certificate and the LOMA with your deed— they will help future buyers.

## Activities in SFHA that Require Local Flood Development Permits and Approvals

- Construction of new buildings
- Additions to buildings
- Substantial improvements of buildings
- Renovation of building interiors
- Repair of substantially damaged buildings
- Placement of manufactured (mobile) homes
- Subdivision of land
- Construction or placement of temporary buildings and accessory structures
- Construction of agricultural buildings
- Construction of roads, bridges, and culverts
- Placement of fill, grading, excavation, mining, and dredging
- Alteration of stream channels



You need local floodplain development permits for these and **ANY** land-disturbing activities in SFHAs.

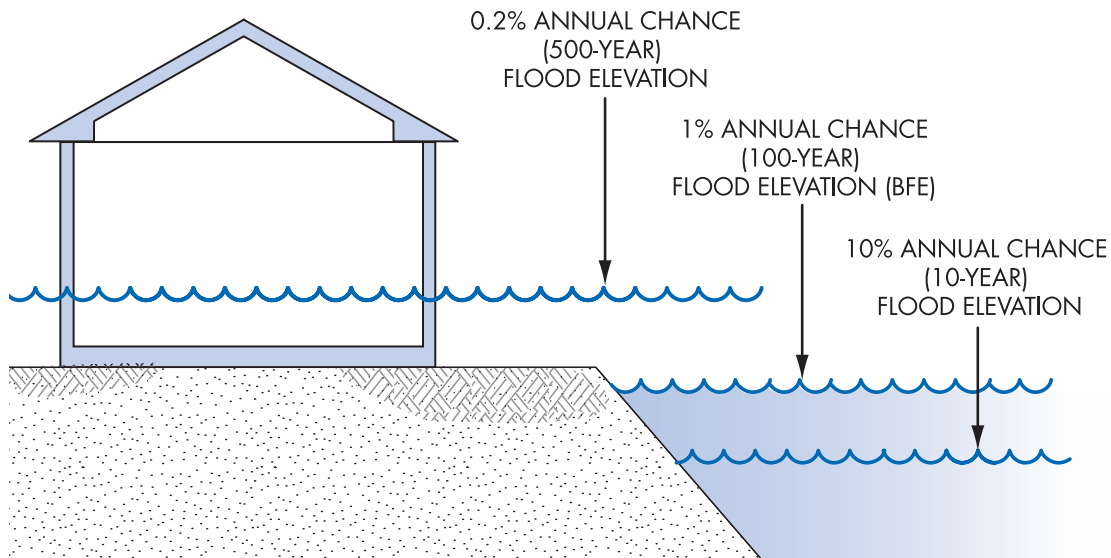
## Some Key Floodplain Development Permit Review Steps

The permit reviewer has to check many things. Some of the key questions are:

- Is the site near a watercourse?
- Is the site in the mapped FEMA floodplain or floodway?
- Have other State and Federal permits been obtained?
- Is the site reasonably safe from flooding?
- Does the **site plan** show the flood zone, Base Flood Elevation, and building location?
- Is substantial improvement of an existing building proposed?
- Is an addition proposed?
- Will new buildings and utilities be elevated properly?
- Will manufactured homes be properly elevated and anchored?
- Do the plans show an appropriate and safe foundation?
- Will the owner/builder have to submit an as-built Elevation Certificate?



## Nature Doesn't Read Flood Maps



Important

### Information

Many people don't understand just how risky the floodplain can be. There is a greater than 26% chance that a non-elevated home in the SFHA will be flooded during a 30-year mortgage period. The chance that a major fire will occur during the same period is less than 5%!

**CAUTION!** Nature doesn't read the flood map! Major storms and flash floods can cause flooding that rises higher than the Base Flood Elevation (BFE). Be safer – protect your home or business by building higher.

[See page 33](#) to see how this will save you money on flood insurance.



# What is the Elevation Certificate and How is it Used?

- The Elevation Certificate (EC) is a FEMA form. Go to [www.fema.gov](http://www.fema.gov) and search for "Elevation Certificate."
- The EC must be completed and sealed by a Professional Land Surveyor or Civil Engineer.
- The property owner, owner's representative or the community official may complete the EC for sites in Approximate A Zones and AO Zones.
- It can be used to show that the grades of building sites are above the Base Flood Elevation.
- It is used to verify building and equipment elevations.
- Insurance agents use the EC to write and rate flood insurance policies.

By itself, the EC cannot be used to waive the requirement to obtain flood insurance. Learn about FEMA's Letter of Map Amendment process.

The image shows a FEMA Elevation Certificate form. The top part is the title page with the FEMA logo and the text "NATIONAL FLOOD INSURANCE PROGRAM ELEVATION CERTIFICATE". Below that is the first section, "SECTION A - PROPERTY INFORMATION". This section includes fields for "Building Owner's Name", "Building Street Address (including Apt., Unit, Suite, and/or Bldg. No. or P.O. Route and Box No.)", "City", "State", and "ZIP Code". There are also checkboxes for "Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)" and "Building Use (e.g., Residential, Non-Residential, Accessory, etc.)". The form also includes a table for "SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION" and "SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)".

# Completing the Elevation Certificate

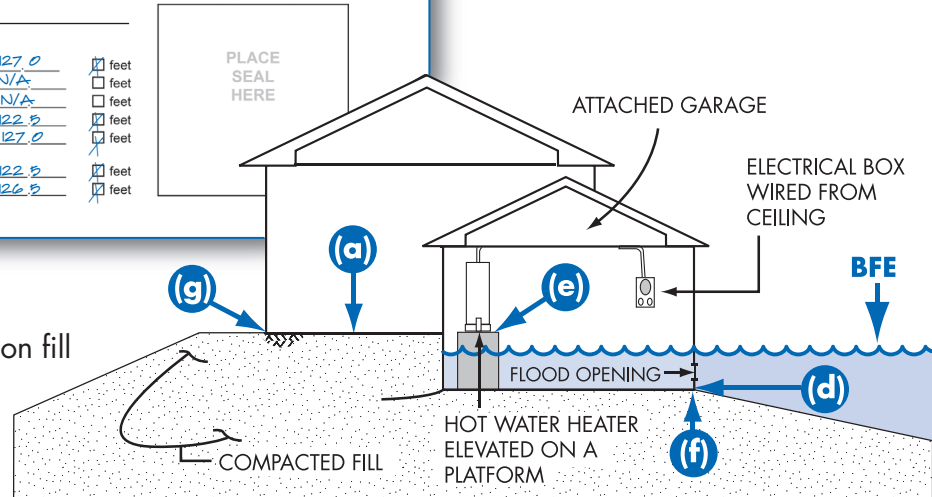
**SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)**

C1. Building elevations are based on:     Construction Drawings\*     Building Under Construction\*     Finished Construction  
 \*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO. Complete Items C2.a-g below according to the building diagram specified in Item A7.  
 Benchmark Utilized PA0025 Vertical Datum NAVD 1988  
 Conversion/Comments \_\_\_\_\_

a) Top of bottom floor (including basement, crawl space, or enclosure floor),	<u>127.0</u>	<input checked="" type="checkbox"/> feet
b) Top of the next higher floor	<u>N/A</u>	<input type="checkbox"/> feet
c) Bottom of the lowest horizontal structural member (V Zones only)	<u>N/A</u>	<input type="checkbox"/> feet
d) Attached garage (top of slab)	<u>122.5</u>	<input checked="" type="checkbox"/> feet
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment in Comments)	<u>127.0</u>	<input checked="" type="checkbox"/> feet
f) Lowest adjacent (finished) grade (LAG)	<u>122.5</u>	<input checked="" type="checkbox"/> feet
g) Highest adjacent (finished) grade (HAG)	<u>126.5</u>	<input checked="" type="checkbox"/> feet

## ELEVATION CERTIFICATE (partial)



In this example, the BFE is 125.0 feet.

The slab-on-grade house was elevated on fill 2 feet above the BFE; the vented garage is 2.5 feet below the BFE.

When you get your building permit you will be informed about when in the construction process you **must** submit Elevation Certificates. You must have a Professional Land Surveyor or Civil Engineer fill out and seal the EC form. The EC includes diagrams for eight building types. Several points must be surveyed.

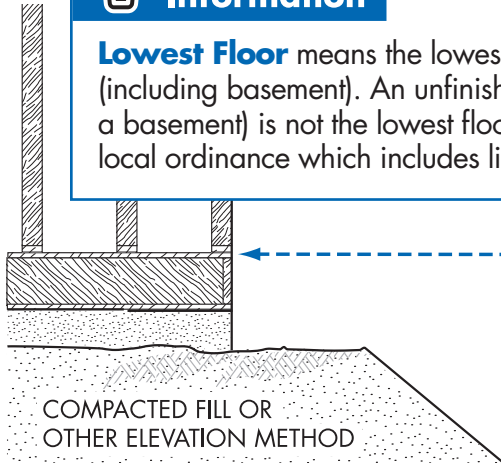
## Paperwork is Important – for You and Your Community



Important

### Information

**Lowest Floor** means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure (that is not a basement) is not the lowest floor if the enclosure is built as required in the local ordinance which includes limited uses ([see pages 41](#) and [47](#)).

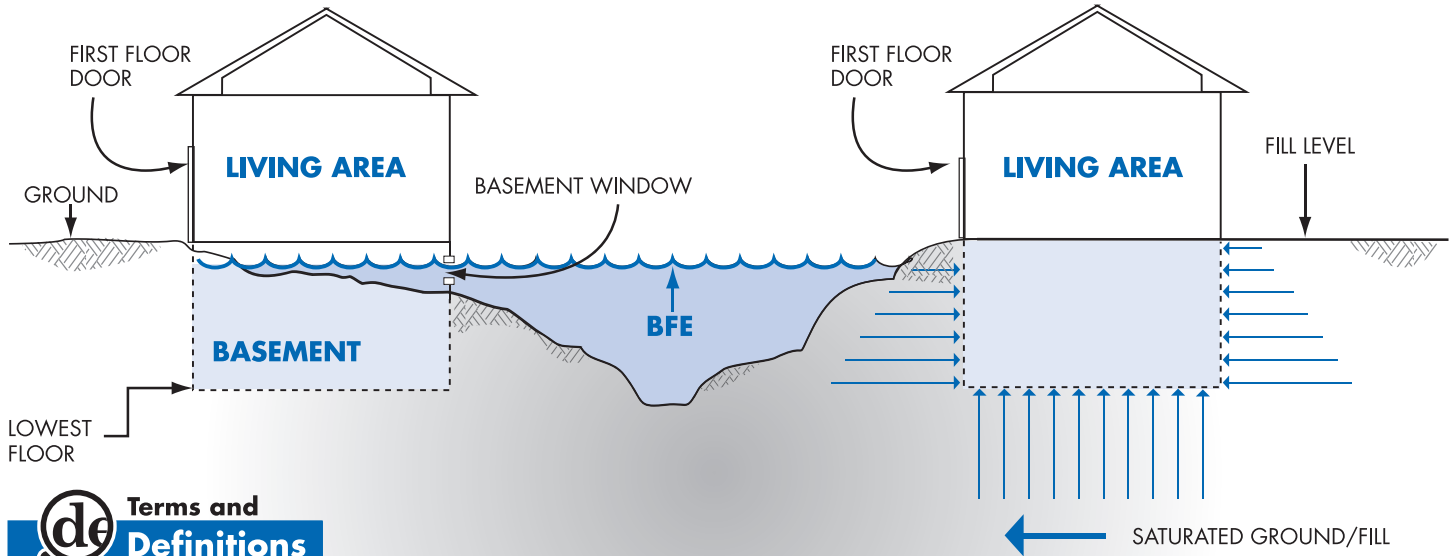


If you get a permit to build in the floodplain, a FEMA Elevation Certificate or a similar documentation will be required as soon as your lowest floor is set. An “as-built” survey and Elevation Certificate will be required when construction is completed.

**This form is important!** It proves that you built correctly.

It can be used to obtain the correct insurance rating.

## Basements Are Especially Flood-Prone

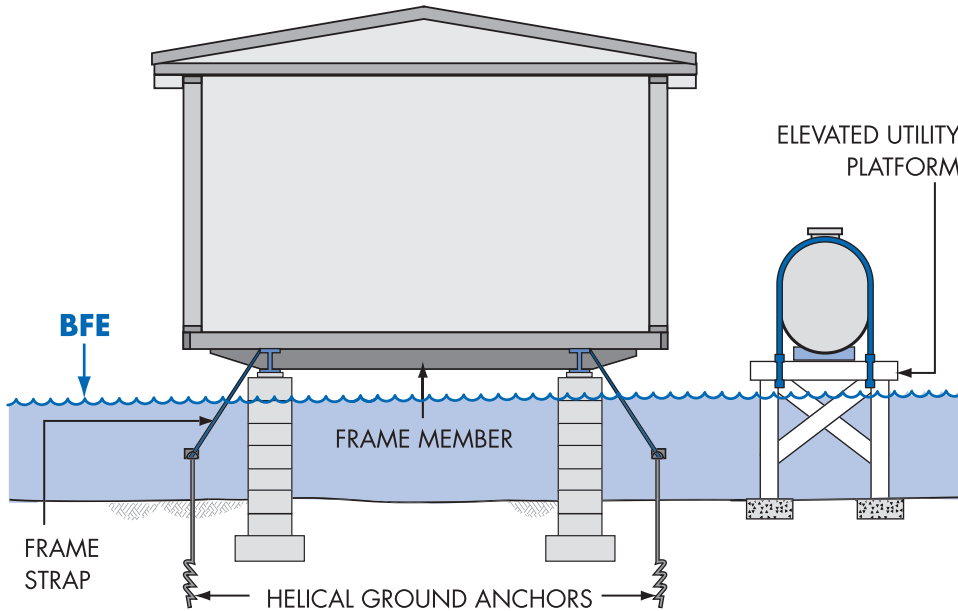


### Terms and Definitions

A **basement** is any portion of a building that has its floor sub-grade (below ground level) on all sides.

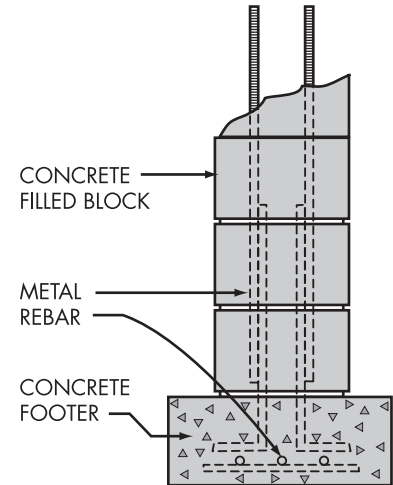
Basements below the BFE **are not allowed in new buildings**. Flood insurance coverage is very limited in existing basements for a very good reason. It only takes an inch of water over the sill and the entire basement fills up! Excavating a basement into fill doesn't always make it safe because saturated groundwater can damage the walls.

## Manufactured Homes Require Special Attention



Homes must be anchored to resist flotation, collapse, and lateral movement by being tied down in accordance with your community's ordinance or the manufacturers' installation specifications for SFHAs.

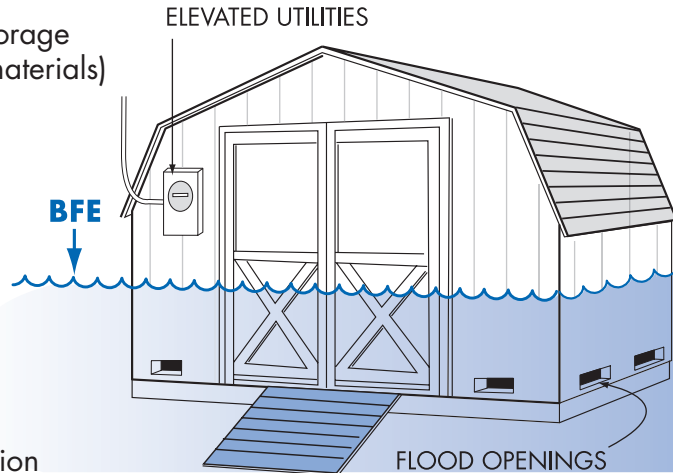
Experience shows that manufactured homes are easily damaged. Just a few inches of water above the floor can cause substantial damage.



## Accessory Structures

In Special Flood Hazard Areas, accessory structures must:

- Not be habitable
- Be used only for parking or storage (not pollutants or hazardous materials)
- Be anchored to resist floating
- Have flood openings
- Be built of flood-resistant materials
- Have elevated utilities
- Not be modified for different use in the future
- Have documented floor elevation



Even small buildings are “development” and permits or variances with noted conditions are required. They must be elevated or anchored and built to withstand flood damage.

**Caution!** Remember, everything inside will get wet when flooding occurs.



## Terms and Definitions

**Accessory Structure** means a structure that is located on the same parcel of land as a principal structure and whose use is incidental to the use of the principal structure. Accessory structures may not be used for human habitation and must be designed to minimize flood damage. Examples: detached garages, carports, storage sheds, gazebos, pole barns, and hay sheds.

## Recreational Vehicles

### In Special Flood Hazard Areas, RVs must:

- Be licensed and titled as an RV or park model (not as a permanent residence)
- Be built on a single chassis
- Must measure 400 sq.ft. or less (measured at largest horizontal projection)
- Have inflated wheels and be self-propelled or towable by light truck
- Have no attached deck, porch or shed
- Be used for temporary recreational, camping, travel or seasonal use (no more than 180 consecutive days)
- Have quick-disconnect sewage, water and electrical connectors



### Important Information

#### Camping near the water?

Ask the campground or RV park operator about flood warnings and plans for safe evacuations.

RVs that do not meet these conditions must be installed and elevated like manufactured homes, including permanent foundations and tie-downs ([see page 44](#)).

## Planning to Improve Your Floodplain Building?

To obtain a permit to improve a building in a floodplain:

- You must provide a copy of your construction contract or a cost estimate (including estimated market value of your own or donated labor and materials).
- Your community will compare the cost of the proposed work to the market value of your building and check the value of improvements.
- You may submit an independent assessment of the market value of the building, if performed by a licensed appraiser.
- If the cost of the improvement equals or exceeds 50% of the market value of the building, it is considered a Substantial Improvement and you must bring the building into full compliance – this may involve raising the foundation or other measures.
- If the costs do not trigger Substantial Improvement requirements, then you should still consider ways to reduce future damage ([see next page](#)).

### **Terms and Definitions**

**Substantial Improvement** means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the start of construction of the improvement. This term includes structures which have incurred substantial damage from any cause (flood, fire, earthquake, hurricanes, tornadoes, etc.), regardless of the actual repair work performed ([see page 58](#)).



Important

### Information

Improvements include:

- Renovation/rehabilitation of the interior of the existing building ([see page 55](#))
- Lateral addition, without renovation or structural alteration of the existing building ([see page 56](#))
- Lateral addition, with renovation or structural alteration of the existing building ([see page 57](#))
- Vertical addition (add new story)



## Want to Learn More About Floodplain Management?

- For advice on flood information and permits, call your community's building permit office, engineering, or planning department.
- Learn about the Alabama Flood Map Modernization Program at [www.adeca.alabama.gov/floods](http://www.adeca.alabama.gov/floods).
- To order flood maps, call FEMA's Flood Map Service Center – (800) 358-9616 or enter the FEMA Map Store to order online at [www.msc.fema.gov](http://www.msc.fema.gov).
- FEMA's publications can be found at [www.fema.gov/library](http://www.fema.gov/library). Search by key word, title or publication number. Call (800) 480-2520 to order free printed copies.
- Find Elevation Certificate training for surveyors by going to [www.fema.gov](http://www.fema.gov) and search on "Elevation Certificate."
- Learn about the NFIP's Community Rating System at: [www.fema.gov/business/nfip/crs](http://www.fema.gov/business/nfip/crs).
- Find out about floodplain management conferences and training sessions at [www.adeca.alabama.gov/floods](http://www.adeca.alabama.gov/floods).



**Floodplain solutions for today, tomorrow, and the future.**

**Be part of the Team**

For information about AAFM, send an email to [water@adeca.alabama.gov](mailto:water@adeca.alabama.gov) or call the Office of Water Resources (OWR) at (334) 242-5499 or 1-877-ALA-WATER (1-877-252-9283) and ask for the NFIP State Coordinator's office.

