

General Floodplain Regulations:

This guide is provided to summarize the local and Federal floodplain regulations and to help homeowners and land owners understand what is and what is not allowed within the floodplain.

Land within the floodplain may be used for other purposes as long as:

- The primary functions of conveyance and flood storage are preserved;
- The use is not a detriment to water quality; and
- The use is consistent with the Land Development Code.

In addition, any improvement with the potential to cause the following are prohibited:

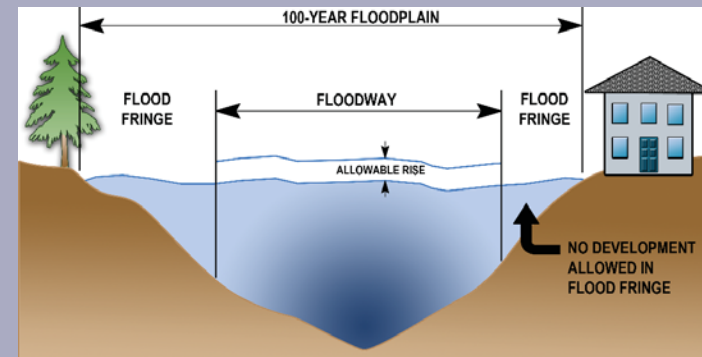
- Obstruction of the flood water flow so that the floodplain is altered (unless approved through a floodplain modification study)
- Reduction in the carrying capacity of the channel (unless approved through a floodplain modification study)
- Potential for material, equipment, or facilities to become dislodged or displaced and to be deposited downstream causing culvert or bridge blockage, channel degradation, or damages to other properties

The Floodplain Administrator has the final determination of whether a particular use or proposed improvement is in conformance with SEMSWA's floodplain regulations and management program.

What does this mean to me?

When planning improvements within a floodplain, you should first contact the floodplain administrator at SEMSWA to discuss the nature of the improvements and whether those improvements are allowed by the floodplain regulations. In cases where improvements are allowable, a floodplain development permit will likely be required.

Floodplain Definitions



A **floodplain** is composed of two primary zones; the **floodway** and the **flood fringe**. The **floodway** is the portion of the floodplain with the greatest depths and velocities and is the area of highest risk. Communities must regulate development in the floodway to ensure that there are no increases in upstream or downstream flood elevations. Areas of flooding outside of the floodway are called the **flood fringe**. Within SEMSWA's jurisdiction, **development** is not allowed in the flood fringe. Below are a few key guidelines regarding the floodway and flood fringe:

- With regards to work in the floodplain, **development** means any project not specifically designed and constructed as a channel improvement or stabilization project
- The floodway must be preserved to allow the floodwater to pass through the river or stream without being obstructed. The floodway is shown as the cross hatched areas on the FIRM (See "Am I in a regulated floodplain?" for additional details). No development is allowed in the floodway.
- Some improvements are allowed in the **flood fringe**, but must meet the local and Federal floodplain regulation requirements. This pocket guide provides information regarding what is and what is not allowed in the flood fringe.
- If any improvements proposed by the homeowner cause the boundaries of the floodplain or floodway to change, the applicant may have to submit information to FEMA in the form of a request for a Conditional Letter of Map Change (CLOM). This application must be prepared by a Professional Engineer (PE). This approval must be obtained before construction can begin. Following completion of improvements, the applicant must also submit an application requesting a Letter of Map Change (LOMC) to FEMA.
- The Floodplain Administrator at SEMSWA can provide guidance on whether a CLOMR and/or LOMR are required.



SEMSWA

HOW TO REACH US

On the Web

Visit SEMSWA online at : www.semswa.org

Via Phone or Fax

Phone : 303.858.8844

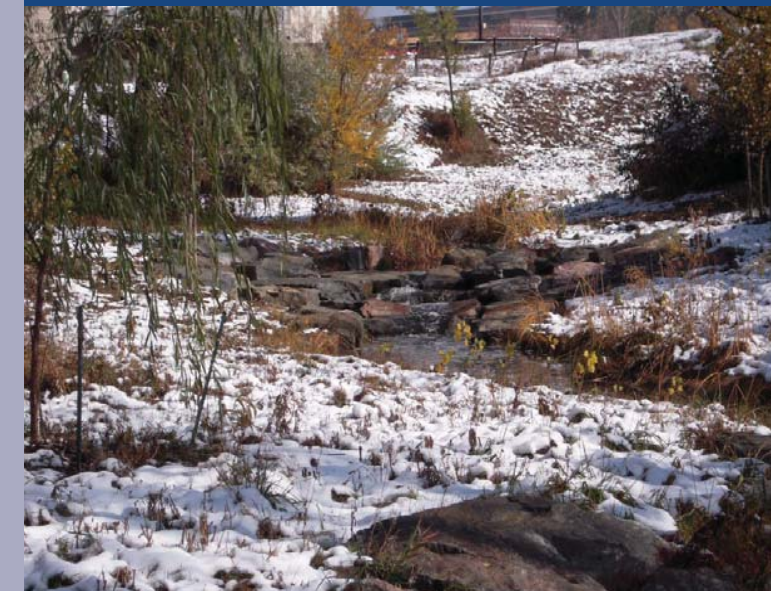
Fax : 303.649.2149

Via Email

semswa@semswa.org

Our Office Location

76 Inverness Drive East, Suite A
Englewood, CO 80112



PLANNING AND CONSTRUCTING HOME IMPROVEMENTS IN THE FLOODPLAIN

A POCKET GUIDE FOR
HOMEOWNERS
AND
PROPERTY OWNERS

Floodplain Education Series



Am I in a FEMA regulated floodplain?

As a homeowner, you likely know whether you are within a 100-year **floodplain**. However, you may not know how much of your property is located within the 100-year floodplain or if your property may even be located within a **floodway**. To determine if you are in the floodplain you can visit The Federal Emergency Management Agency's (FEMA) flood map website. This website provides Flood Insurance Rate Maps (**FIRMs**) for all National Flood Insurance Program (NFIP) communities throughout the Country. Access to these maps is available via the internet at:

<http://msc.fema.gov/>

Or these maps may be obtained by contacting the Floodplain Administrator at SEMSWA.

FIRMs show the boundaries of Special Flood Hazard Areas (SFHAs) within a community. SFHAs are flood zones identified according to their varying level of risk. Areas of high risk on riverine systems (rivers, streams, creeks, gulches, etc.) are summarized in the table below. In general, if you are located in any "A" Zone, the guidelines of this pocket guide apply to you. If you are located in a shaded Zone "X" or an unshaded Zone "X", then only the standard local improvement guidelines, such as building permits, local HOA guidelines, etc. would apply to your improvements.

FLOOD HAZARD ZONES	
Zone	Description
A, AE, AH, AO, AR	Areas with a 1% annual chance of flooding or a 26% chance of flooding over the life of a 30-year mortgage. Insurance is required in these areas.
X	Areas outside the 1-percent annual chance floodplain, areas of sheet flow flooding where average depths are less than 1 foot, or areas protected from the 1% annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone. Insurance purchase is not required in these zones.
Non-FEMA Regulated Floodplains	Sometimes the most up-to-date and relevant floodplain studies are not shown on the FIRM. For example, the Urban Drainage and Flood Control District produces Flood Hazard Area Delineations (FHADs) showing potential 100-year flooding. These maps are commonly used by the Floodplain Administrator to determine if property and/or structures are within the floodplain and are used to regulate floodplains in local communities. Consult with the SEMSWA Floodplain Administrator to determine if there is a Non-FEMA Regulated Floodplain in your project area. Insurance purchase is not required in these zones, but is highly recommended.

What's Allowed...

While many improvements are prohibited in a floodplain, some uses are allowed if the improvement is in conformance with local regulations and the improvements do not violate any of the items mentioned under the "What's Prohibited" section of this pocket guide. A list of those allowable improvements related to individual homeowners are provided below:

- Playground Equipment – Property owners will be required to accept legal liability for flooding potential and hazards.
- Landscaping in conformance with uses allowed in drainage easements
- At-grade trails, such as footpaths that are not placed above the existing ground.
- Underground utilities, with adequate cover.
- Recessed stairs.

I think my improvements are allowed by the regulations. Do I still need permits?

1. A Floodplain Development Permit is required for any development proposed in the Floodplain. All activities, regardless of impact, need to be permitted.
2. Building permits are required for any structural improvements or additions.
3. A Grading, Erosion, and Sediment Control permit is required for any grading activities within the floodplain.
4. A Fence Permit is required for fence construction.

Where can I find additional information?

Detailed floodplain regulations for SEMSWA, Arapahoe County and the City of Centennial can be found on SEMSWA's website by clicking on the Resources link. At any time, you can contact SEMSWA staff for direction concerning your proposed improvements.

When planning improvements...first contact your local floodplain administrator to discuss the nature of the improvements...

What's Prohibited...

The following list of activities, specifically related to homeowners, is prohibited within the floodplain:

Structures

New structures of all types including buildings (residential structures, non-residential structures), recreational or temporary structures are not allowed in the floodplain. This includes footbridges, sheds, gazebos, and any out structures.



Home Additions/Improvements

Substantial improvement to existing structures are not allowed in the floodplain. However, some improvements are allowed if they are below the threshold of "substantial" (see additional information under "Building Improvements" in this guide). This includes basements and garages. Additions must meet freeboard criteria.



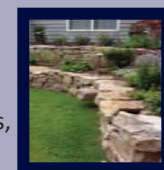
Fencing

Fencing, including solid or perforated wood; split rail; chain link; stone, brick or other are not allowed in the floodplain. Three-strand barbed wire may be permitted in rural areas on a case-by-case basis.



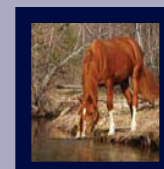
Site Grading and Landscaping

Any site modification in the floodplain that would act as an obstruction to flow or adversely affect the floodplain is prohibited. This includes retaining walls, landscape walls, pedestrian bridges or landscaping. Also prohibited are decks, patios, and pools.



Storage and Livestock

Storage, processing of materials, or any other activity that may have an adverse impact on water quality is not allowed in the floodplain. For this reason, livestock may not be kept within the floodplain limits. Storage or processing of materials, which are buoyant, flammable, explosive, or could cause injury to humans, animals, or plants is prohibited in the floodplain.



Manufactured Homes/Mobile Homes

Additions to or placement of manufactured homes are not allowed in the floodplain. In addition, mobile/RV type homes are not allowed to be parked within the floodplain.



Building Improvements...

Substantial improvements to existing buildings in the 100-year floodplain are prohibited, however some improvements to existing structures, such as additions, are allowable if they meet the substantial improvement guidelines and freeboard requirements set forth in the local Land Development Code (LDC). In all cases, a floodplain development permit is required for any improvements to existing structures.



Substantial improvement is defined by the following conditions:

1. A building permit is requested for any repair, reconstruction, or improvement to a **non-conforming structure**, involving alteration of any wall, ceiling, floor or other structural part of the building. A **non-conforming structure** is a structure that received permits at the time it was built, but does not meet the current development or land-use codes.
2. The cost of the improvement, or the amount of damage, equals or exceeds 50 percent of the market value of the structure either before the improvement or repair is started or before the building was damaged; and
3. Substantial improvements are cumulative over the life of the structure.

If your proposed residential improvement is below the substantial improvement threshold, then it likely can be constructed.

However, any improvement must also meet the 2-foot **freeboard** requirement. **Freeboard is the measured height above the 100-year flood level that a structure must be built above.**

1. Freeboard for improvements to an existing structure, including any garages is 2-feet.
2. The lowest floor of a structure, including the basement, must be elevated 2-feet above the 100-year flood level.
3. All electrical work must be elevated 2-feet above the 100-year flood level.

For non-residential structures, any improvement must also meet the 2-foot **freeboard** requirement or meet the following requirements:

1. Be floodproofed.
2. Have appropriate structural components capable of resisting loads from water and buoyancy.
3. Be certified by a PE or Architect on methods of construction.
4. If in a shallow flooding zone, must have adequate drainage.