

Residential Uses and Standards in the Floodplain

The floodplain is a higher risk area. If possible, build outside the floodplain with your lowest floor (including basement) above the Regulatory Flood Protection Elevation (RFPE). This reduces your risk of flooding, and you will not be required to buy flood insurance. If you must build in the floodplain, work with your community to ensure that all local regulations are addressed in your proposed building plan. These regulations can be very restrictive.

To determine what can be done on property in the floodplain, two key questions must be answered:

1. **Is the property in the floodway or flood fringe?** The types of development that are allowed as permitted or conditional uses depend on whether the property is in the floodway or flood fringe. Only limited uses are allowed in the floodway, whereas most land uses are allowed in the flood fringe if local floodplain standards are applied. ([See Floodplain Information Sheet 2, "What are the Floodway and Flood Fringe?"](#))
2. **What uses are allowed by the local zoning authority (i.e., city, township, or county)?** The standards discussed below are based on state and federal minimum standards. Your community may have more restrictive building standards than the state and federal minimums.

What uses are allowed in the floodway and flood fringe of the floodplain?

Floodway uses

- Open space uses, such as gardens, farming, parks, trails, parking lots, and golf courses may be allowed depending on your zoning district. Limited grading and earth moving may also be allowed – with a permit – if it does not create an obstruction or cause any increase in flood levels.
- While new structures, additions to existing structures, and substantial improvements to existing structures **are prohibited**, most nonconforming uses are allowed. A nonconforming use is a structure built before the publication date of your community's first Federal Emergency Management Agency (FEMA) floodplain map (a.k.a., pre-FIRM), commonly called "grandfathered." Nonconforming uses in the floodway have the following conditions:
 - A structure *may* continue to be used, repaired, and maintained, but no additions may be constructed.
 - Substantial damage. If a structure is damaged (by any source) by 50% or more of the pre-damage market value, then the structure *may not* be reconstructed in the floodway.

Flood fringe uses

- The use must be allowed by the underlying zoning of the community.
- New structures and additions to existing structures must be properly elevated on fill (See Figure 1).



Figure 1. A properly elevated residential building in the flood fringe.

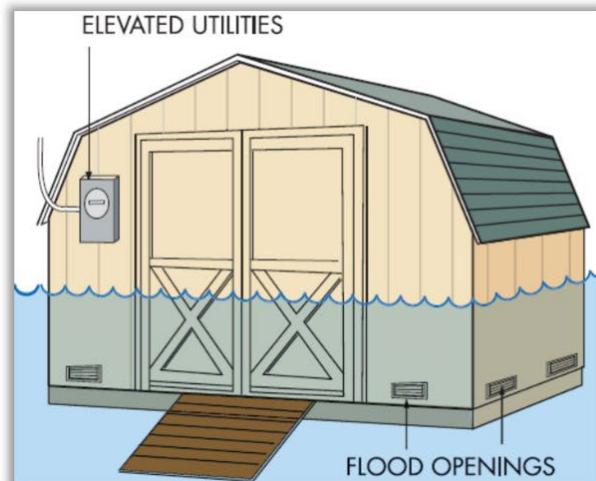


Figure 2. A properly wet-floodproofed shed in the flood fringe.

- New structures and additions to existing structures may, as a conditional use, employ alternative elevation methods (e.g., blocks or pilings, filled stem walls, or internally flooded enclosed areas) if allowed by regulations of the community.
- Accessory structures (e.g., garages and sheds) less than 600 sq. ft. in size and used solely for parking and storage may be constructed if properly elevated on fill, or may be wet-floodproofed below the RFPE (See Figure 2).
- Nonconforming uses in the flood fringe have the following conditions:
 - A structure *may* continue to be used, repaired, and maintained, but additions must be properly elevated or floodproofed in compliance with current community regulations.
 - Substantial damage. If a structure is damaged (by any source) by 50% or more of the pre-damage market value, then the entire structure must be brought into compliance with the community's floodplain regulations.
 - Substantial improvement. If a structure is improved and the cost of proposed additions and improvements (*plus* any maintenance/repairs done within one year of the improvements) is 50% or more of the original structure's inflation-adjusted market value, then the entire structure must be brought into compliance with the community's floodplain regulations.

What are the key building standards for residential structures in the flood fringe?

The key building standards that meet state and federal law (See Figure 3), include:

- The placement of fill for elevating new residential structures shall be prohibited in the floodway.
- Fill for elevating new residential structures shall be at or above the 100-year (1% annual chance) flood elevation *plus* floodway stage increase, extending at least 15 feet horizontally from all sides of the structure.
- The top (i.e., walking surface) of the lowest floor (including basement or crawl space) shall be at or above the RFPE.
- An "as-built" survey shall be submitted to the zoning authority to verify the development was constructed to the permitted elevation.
- Must meet all local ordinance requirements, including setback* requirements (i.e., from lot lines, and from the ordinary high water level (OHWL) for shoreland management or wild and scenic rivers ordinances).

**Setbacks are typically measured from the ordinary high water level (OHWL), which is the top of the bank of the channel on watercourses. The OHWL is not the same as the 100-year (1% annual chance) floodplain elevation and is usually lower than the 100-year floodplain elevation.*

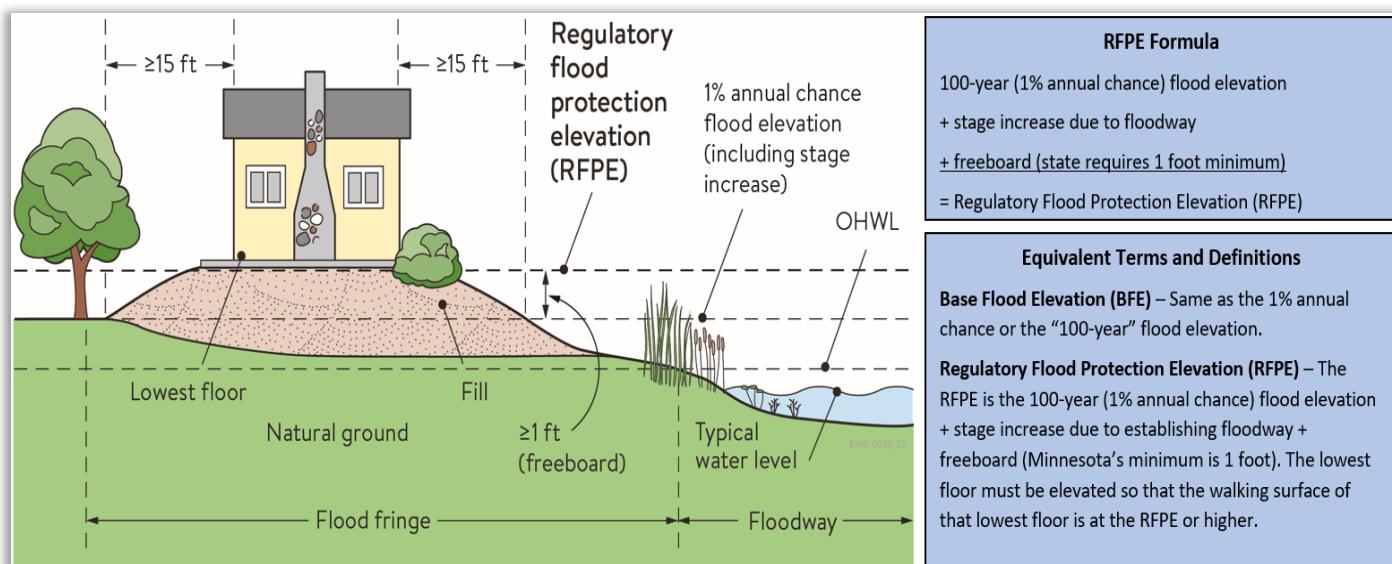


Figure 3. Key standards for structures in the flood fringe (picture not drawn to scale). Please note local ordinances may be more restrictive.