Conditional Uses in the Floodplain

What is a conditional use permit (CUP)?

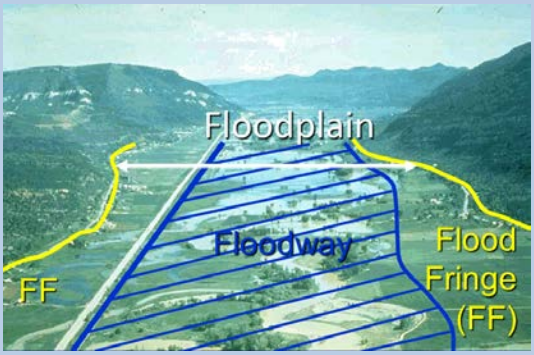
If a land use is listed as "permitted" in the local ordinance and the project meets all the ordinance standards, a regular building or land use permit is issued. However, a local government may choose to allow some uses, known as conditional uses, in the floodway and flood fringe ONLY after going through a more thorough review process. (Some communities use the term "special uses," which is also the term used in the state floodplain rules). A CUP differs from a regular permit in the following ways:

- The CUP requires a public hearing before the planning commission and city council or county board
- Additional standards must be met to ensure that flood protection and public safety concerns are addressed

When do communities allow CUPs?

Local governments may choose whether or not to allow conditional uses in floodplain districts. Important considerations include:

- What type of flooding occurs? Does the community have a large river with weeks of warning time and shallow slow flooding, or a smaller flashy creek with a few hours of warning time?
- What are the existing uses and development pressures in the floodplain? Are there higher alternative development sites?
- Will community emergency responders, businesses or residents be put at risk if that use is allowed?



What are the FLOODWAY and FLOOD FRINGE?

The floodway is the land immediately adjoining a water body that is the natural conduit for floodwaters. The floodway must remain open in order to allow floodwaters to pass.

The flood fringe is the remainder of the floodplain lying outside of the floodway. This area is generally covered by shallow, slow moving floodwaters. Development is normally allowed in the flood fringe, provided that buildings are placed on fill so that the lowest floor, including the basement, is above the regulatory flood protection elevation (RFPE)

What uses may be allowed in the floodway with a CUP?

Examples of typical uses that may be allowed in a floodway with a CUP:

- Storage yards or storage of fill
- Gravel mining
- Accessory structures for allowable open space uses, such as a picnic shelter in a park (see Figures 1 and 2)

What are the standards for CUPs in a floodway?

Structural standards for a CUP in a floodway typically include the following:

- Cause NO increase in 1% annual chance (i.e., "100-year") flood elevation
- Erosion and sedimentation concerns addressed
- Emergency evacuation plans prepared as needed, including removal of recreational vehicles or stored materials within specified time period
- Accessory structures (i.e., park shelters):
  - Not used for human habitation
  - Flood resistant materials, elevated utilities and securely anchored

What uses may be allowed in the flood fringe with a CUP?

Examples of uses that may be allowed in the flood fringe with a CUP include:

- Non-residential structures that are "dry" floodproofed to the regulatory flood protection elevation (RFPE) rather than elevated on fill.
- Structures that are elevated by other methods, including stilts, parallel walls, and tuck-under garages, provided the lower level is only used for parking, building access, and limited storage below the RFPE (see Figures 3 and 4 on page 2)

Figure 1 (above): structure allowed in floodway since it is accessory to an open space use (a park) and obtained a CUP.

Figure 2 (below): same structure later allowed floodwaters to pass through.

What are the standards for CUPs in a flood fringe?

Structural standards for a CUP in a flood fringe may include the following:

- Design and certification of flood-proofing by a registered professional engineer (PE)
- Compliance with standards for hydrostatic, hydrodynamic, and impact loading
- Emergency evacuation plans for travel-ready parked vehicles or materials stored below the flood elevation
- Compliance with State Building Code for "dry" flood-proofed (FP1 or FP2) nonresidential buildings
- A design that meets the Federal Emergency Management Agency (FEMA) requirements for an "enclosed area below the lowest floor"

What is an "enclosed area below the lowest floor"?

An unfinished and flood resistant enclosure, used solely for parking of vehicles, building access, or storage in an area other than a basement, is not considered a building's lowest floor (for insurance purposes) if that enclosure is built according to the following criteria (see 44, Code of Federal Regulations, Section 60.3(c)(5)):

- At least two openings (on at least two sides of the structure) with a total net area of at least one square inch for every square foot of enclosed area that is subject to flooding (see Figure 5)
- The bottom of all openings must be located no higher than one foot above grade (Figure 5)
- Openings that are automatic may be equipped with screens, louvers, valves, or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters (without human intervention)
- At least one side of the structure must be at or above grade and must not be a basement, according to FEMA's definition (Figures 6, 7)

For more information, see FEMA's Technical Bulletin 1 (August 2008), "Openings in Foundation Walls and Walls of Enclosures"

Figure 3 (above): Example of a structure allowed in the flood fringe since it met design criteria and obtained a conditional use permit.

Figure 4 (below) shows that the structure later allowed floodwaters to pass through.

Figure 5 (below): Example of a structure with automatic openings (engineered version), which must be located on at least two sides of the structure to allow floodwaters to pass through.

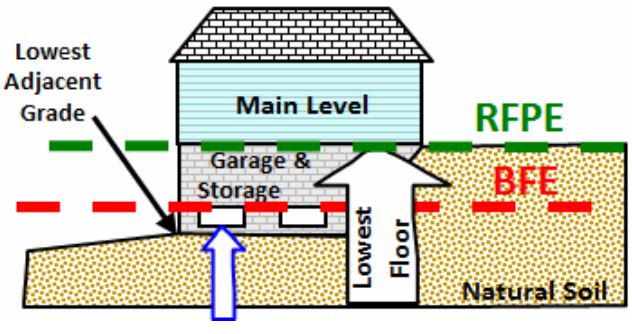


Figure 6. Example of a tuck-under garage and storage area below the lowest floor, which is allowed with a CUP. Openings in the tuck-under garage/storage space are automatic, properly sized, and on at least two sides of the structure.

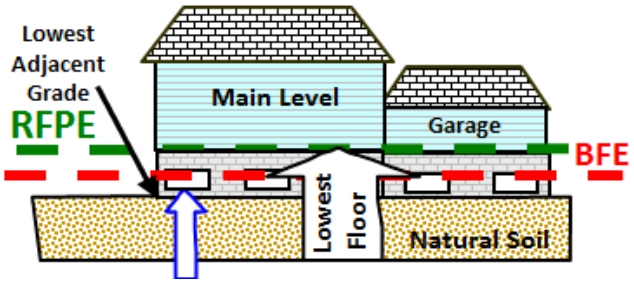


Figure 7. Example of an enclosed crawl space area below the lowest floor, which is allowed with a CUP. Openings are automatic, properly sized, and located on at least two sides of the structure.