

**Department of Development and Environmental Services (DDES)**

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# Flood Insurance and FEMA

DDES Customer  
Information Bulletin #**38****• FREQUENTLY ASKED QUESTIONS •**

**Visit the DDES Web site at  
[www.kingcounty.gov/permits](http://www.kingcounty.gov/permits)  
for more information**

King County DDES has created customer information bulletins to inform the general public about the effect of codes and regulations on their projects. These bulletins are not intended to be complete statements of all laws and rules and should not be used as substitutes for them. If conflicts and questions arise, current codes and regulations are final authority. Because the codes and regulations may be revised or amended at any time, consult King County staff to be sure you understand all requirements before beginning work. It is the applicant's responsibility to ensure that the project meets all requirements of applicable codes and regulations.

For alternate formats, call 206-296-6600.

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**How will national flood insurance and FEMA affect a proposed project?**

This bulletin explains the effect of the Federal Emergency Management Agency (FEMA) on the permitting process of the Department of Development and Environmental Services (DDES) and answers some common questions about the National Flood Insurance Program's (NFIP's) impact on development projects. It does not take into account other types of development restrictions, such as shoreline environmental designations, critical area setbacks, wetlands, stream corridor buffer zones, or other setback requirements. For information on these, see the other bulletins listed at the end of this bulletin.

### **What is the National Flood Insurance Program?**

The NFIP was established by Congress with the passage of the National Flood Insurance Act in 1968. The Federal Insurance Administration, a Division of the Federal Emergency Management Agency, administers the program. The State Department of Ecology, in Olympia, administers the NFIP in Washington State. The NFIP has a threefold objective:

- To provide Federally subsidized flood insurance for property owners
- To reduce flood damage to new construction
- To minimize future flood damage to existing structures.

Although restrictions on developing private property are never popular with landowners, King County's NFIP participation benefits everyone. Before the adoption of the National Flood Insurance Act, the public could not buy flood insurance from insurance companies due to the high cost of reimbursing flood victims and the frequency of flooding. In passing the Act, the Federal Government agreed to subsidize flood insurance in exchange for local communities' agreeing to restrict development in Flood Hazard Areas in order to reduce the likelihood of flood damage. To qualify for participation in the NFIP, a community must meet Federal guidelines for development restrictions in Flood Hazard Areas. Unincorporated King County is such a community.

### **What is a Special Flood Hazard Area?**

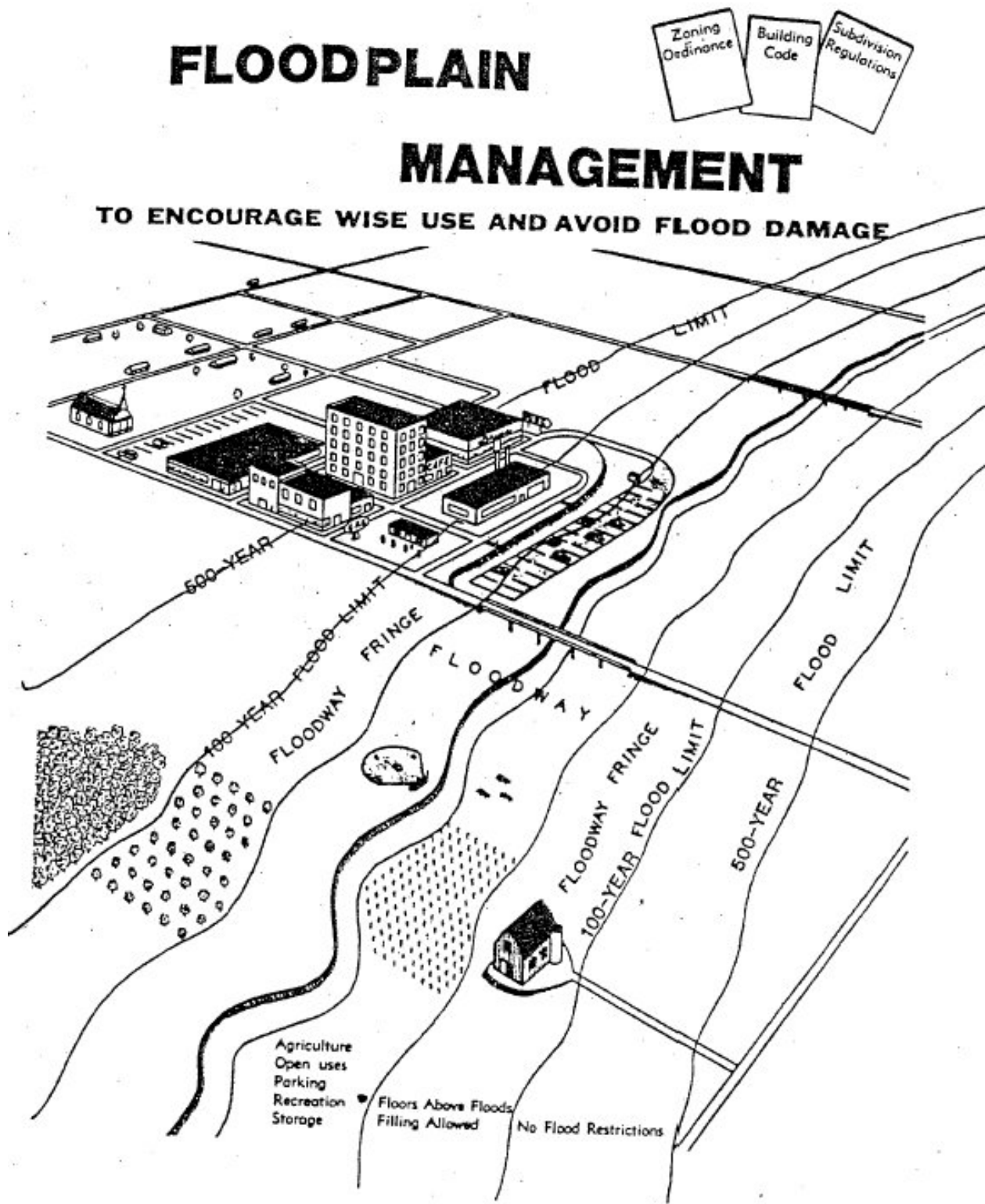
FEMA determines Flood Hazard Areas by conducting studies using statistical analyses of river flow, storm tides, and rainfall; long-term historical data of flooding in these areas; information obtained from public meetings; floodplain topographic surveys; and hydrologic and hydraulic analyses.

Portions of a river or stream channel and adjacent lands that are subject to floods with a one percent chance of being exceeded in any given year (100-Year Floods) are identified as Special Flood Hazard Areas (SFHAs) or 100-year Floodplains. SFHAs are indicated on Flood Insurance Rate Maps (FIRMs), which are prepared by FEMA and used by private lenders to determine flood insurance requirements and premium rates. DDES has copies of these maps to which the public can refer.

FEMA divides floodplains into "Floodways" and "Floodway Fringes," or the areas bordering floodways, and distinguishes floodplains from "Flood-Free Areas," or areas that are not affected by deep or fast-flowing water. (See Figure 1.) The floodway is the land most severely affected by flooding and must be able to carry and discharge floodwaters. No development is allowed in this area. FEMA criteria allow development, with restrictions, in the "Floodway Fringe," an area that does not receive the same depth and/or velocity of water as the floodway.

In 1990, King County added a new restriction called the "Zero-Rise Floodway." [See Chapter 21A.06.505 of the King County Code (KCC).] Prior to 1990, King County used the FEMA "One-Foot-Rise Floodway" Standard, which allowed development in the "Floodway Fringe" as long as the height of the 100-Year Floodway water is not elevated more than one foot. Such encroachment on the floodway reduces the area through which floodwaters can be discharged. Floodwater then backs up behind the development, enlarging the floodplain and increasing flood damage on properties that are adjacent, upstream, and/or downstream. King County's Zero-Rise Standard reduces flooding by prohibiting "Flood Fringe" development that would cause a perceptible rise in the floodway. The prohibition on development in the FEMA Floodway still applies, and the floodway is enlarged to include almost the entire floodplain.

Figure 1: FEMA Floodplain Management



The Zero-Rise Standard and the definitions below are current and consistent with the King County Code:

- **Floodplain** is the total area subject to inundation by the 100-Year Flood (also known as the “Base Flood”).
- **FEMA Floodway** is the channel of the stream or river and that portion of the adjoining floodplain necessary to discharge the 100-Year Flood flow without increasing the 100-Year Flood flow by any measurable increase in flood height. “Measurable increase in flood height” means an upward rise in 100-year Flood Elevation equal to or greater than 0.01 foot. This definition is broader than the definition of “FEMA Floodway” and includes all of the FEMA Floodplain. The boundaries of the 100-Year Floodplain, as shown on the FIRMs, are considered the boundaries of the Zero-Rise Floodway, unless otherwise delineated by a Special Critical Areas (Zero-Rise) Study.
- **Flood Fringe** is the portion of the floodplain outside of the Zero-Rise Floodway that is covered by flood waters during the 100-Year Flood. It is the area generally associated with standing water, rather than rapidly flowing water.

NOTE: Every stream, wetland, lake, closed depression, or other body of water has a floodplain. FEMA only maps the larger bodies of water. In many cases, unmapped water bodies in King County must be evaluated to meet floodplain code requirements.

### **What restrictions apply to development in flood hazard areas?**

“Floodplain Management” refers to King County’s program of corrective and preventive measures for reducing future flood damage. These measures take a variety of forms and generally include Title 21A of the King County Code (KCC) and the Surface Water Runoff Policy in KCC Chapter 9.04. Because King County DDES oversees development, it regulates floodplain management and development restrictions in unincorporated King County. [See KCC Chapter 21A.24.]

Development is allowed in the Flood Fringe and Zero-Rise Floodway with restrictions. A Zero-Rise Study is sometimes needed to determine whether proposed development meets flood standards. Since this type of study is expensive, it can be avoided in most cases by following the guidelines described in the remainder of this bulletin.

According to FEMA’s criteria, both residential and nonresidential construction projects may include either new construction or “substantial improvements” to an existing building. Substantial improvements include repair, construction, or improvement of an existing building at a cost that is 50 percent or more of the market value than before the project began. Substantial improvement does not include the following:

- Actions taken for health, sanitary, or safety code specifications that are the minimum required to ensure safe living conditions;
- Actions taken to comply with existing State or local codes and ordinances; and
- Alterations to a building listed on the National Register of Historical Places or a State inventory of historic places.

### **What restrictions apply to development in the flood fringe area outside the zero-rise floodway?**

New residential and nonresidential construction, as well as substantial improvement to existing buildings, is subject to the following restrictions within the Flood Fringe:

- Chapter 21A.24.240 of the King County Code states that development must not reduce the 100-year Flood Storage Volume of the floodplain. Grading or any other activity that hinders the effective discharge of floodwaters without creating compensatory storage on the site, or that causes erosion or pollution, is prohibited. Grading may be allowed outside the Zero-Rise Floodway if it does not violate these or other County restrictions. The Channel Migration Public Rule is also applied to mapped areas of major rivers.
- All elevated construction must be designed and certified by a professional Structural or Civil Engineer registered in the State of Washington, and must be approved by King County DDES before construction.
- For any new residential structure, hotel, motel, or boardinghouse (including substantial improvements of existing residential structures), the lowest floor, including the basement, must be elevated to the Flood Protection Elevation (FPE). The FPE is “An elevation that is one foot above the Base Flood Elevation (BFE).” [For the elevation of the 100-Year Flood, see Chapter 21A.06.490 of the King County Code]. The space beneath the structure must be kept open to allow floodwaters to flow through the foundation area. The elevation may be accomplished using posts, piers, piles, columns, or stem walls. King County also has additional requirements for openings on opposite walls. Using fill to raise a structure to the FPE usually is not allowed and requires a Zero-Rise Study and compensatory storage for fill materials.
- For new, nonresidential structures (or substantial improvements to existing nonresidential structures), the developer must either elevate the lowest floor, as described above, or floodproof to the FPE (minimum). The standard required is dry floodproofing. Floodproofing must be certified by a licensed Engineer or Architect and be able to withstand the depth and impact of the 100-Year Flood. It must extend to or beyond the 100-Year Flood Level, so that the structure is watertight. Using fill for floodproofing will require compensatory storage or a Zero-Rise Flood Study.
- For subdivisions or short subdivisions, new building lots must contain 5,000 square feet or more of buildable land outside the Zero-Rise Floodway. This area of 5,000 square feet or more must be indicated by building setback lines on the recorded document of the proposed construction.
- For all mobile homes, all standards for flood hazard protection for conventional construction apply. Also, mobile homes must be anchored and installed using methods and practices that minimize flood damage.
- All utilities for new and reconstructed residential and nonresidential buildings must be floodproofed and elevated above the FPE, as described above.
- All construction materials used below the FPE must be flood resistant.

### **What regulations apply to development in the Zero-Rise Floodway outside the FEMA floodway?**

Some development is also allowed in the Zero-Rise Floodway. Any activity must, however, conform to the following conditions, as well as to the requirements applying to the Flood Fringe. When a conflict exists, the more restrictive conditions apply. Mobile homes must be anchored and installed using methods and practices that minimize flood damage.

- Development activity must not reduce the effective storage volume of the floodplain.
- Development proposals, including permitted new construction or reconstruction, must not cause an increase in the 100-Year Flood Elevation.
- Post or piling construction techniques or openings in foundation walls allowing water to flow beneath a structure must be used. All temporary structures or materials hazardous to public health and safety must be removed from the Zero-Rise Floodway during the flood season, from September 30 to May 1.
- New construction (residential or nonresidential) is allowed if the structure is outside the FEMA Floodway and is located on a legal lot that contains less than 5,000 square feet of buildable land outside the Zero-Rise Floodway. If new residential construction meets the above requirements, no studies are needed, provided that the total building footprint of all proposed structures on the lot is less than 2,000 square feet. Substantial improvement to existing residential structures in the Zero-Rise Floodway outside the FEMA Floodway, where the footprint is not increased, does not require a special study.
- Any new structure, substantial improvement, or reconstruction of an existing residential structure must also meet the same standards as those for new construction in the Flood Fringe.
- New lots including part of the Zero-Rise Floodway may be created only if the lots meet the requirements for construction in the Flood Fringe, unless they are declared as non-building lots.
- Utilities must meet the minimum requirements of those in a Flood Fringe Area. In addition, a new on-site sewage disposal system is prohibited unless the Seattle-King County Department of Public Health grants a waiver, and construction of sewage treatment facilities is not allowed. King County also specifies procedures for burying utility transmission lines transporting hazardous substances.

When customers apply for a commercial or residential building permit, DDES Permit Center staff (206-296-6600) will explain the above restrictions. If applicants have questions concerning the subdivision permit review process, contact the Engineering Review Unit at 206-296-6640. Once a permit is granted and development begins, a building inspector will visit a proposed site to ensure that a project conforms to the regulations described above.

**How can customers tell if a property is in a flood hazard area?**

If customers are applying for a building or development permit, they need to know if a proposed property lies within a floodplain. King County public libraries maintain copies of FIRMs for the entire State of Washington. DDES maintains copies of FIRMs for unincorporated King County. Because of the scale of the maps, it can be difficult to locate property accurately without the legal description and Tax Parcel Number. Customers may also go online to look at maps on the Internet at [www.fema.gov](http://www.fema.gov).

When customers come to DDES to ask about a permit, they should bring the Tax Parcel Number and a legal description of the pertinent property, so that its location on the FIRM can be determined. Applicants should also bring an Assessor's map of a property. Once customers have located a property on the map and have determined the 100-Year Flood Elevation, they may want to have a proposed property surveyed to determine its elevation and to find out whether any portion lies within a floodplain.

Currently, King County DDES has a Flood Inquiry Telephone Line to help locate properties in unincorporated King County on floodplain maps at 206-296-6606. As of January 1, 2003, review fees are collected for research of properties in unincorporated King County only. Please allow a five-day response time.

**Why is my neighbor across the river able to build without these restrictions?**

A community's participation in the NFIP is voluntary. Individual communities are free to adopt more restrictive development standards than the Federal minimum. If the river forms the boundary line, a neighbor may live in a community with fewer restrictions on development than those in unincorporated King County, or one that has chosen not to participate in the NFIP.

**What should customers do if there is a disagreement with the FIRM designation of a property?**

There are two procedures for requesting a change or correction to a flood map:

- A Letter of Map Amendment (LOMA)
- A Letter of Map Revision (LOMR)

Requests for multiple-lot or multiple-building determinations that do not involve changes to Base Flood Elevations or Floodways should be addressed to the following:

Federal Emergency Management Agency  
Federal Insurance Administration  
Office of Risk Assessment  
Technical Operations Division  
Washington, D.C. 20472

All other requests should be sent to the local FEMA Regional Office at the following address:

Federal Emergency Management Agency  
Region 10  
130 228th Street SW  
Bothell, WA 98021  
Telephone Number: 425-487-4678

**What is a LOMA (Letter of Map Amendment)?**

A Letter of Map Amendment (LOMA) is used to make changes to individual property designations if a piece of property has been inadvertently included in a floodplain. A LOMA is the result of an administrative procedure in which the Federal Insurance Administrator reviews scientific or technical data submitted by the owner or lessee of the property to support his or her request for a map amendment. It is up to the petitioner to establish that the property is not located in a floodplain. If FEMA issues a LOMA, it amends the currently effective FEMA map and establishes that the property is not located in a Special Flood Hazard Areas (SFHA). After a LOMA is issued, DDES will process a proposed permit application. The lending institution of a customer may, however, still require flood insurance as a condition of granting a loan or mortgage.

**What is a LOMR (Letter of Map Revision)?**

A Letter of Map Revision (LOMR) is an official revision to the existing FEMA map. It is used to change flood zones, flood delineations, and flood elevations. These changes to the SFHA may be the result of structural modifications to the floodplain, errors in the original study, or new methods of analysis. A LOMR is usually followed by a revision of the official FEMA maps. King County must formally accept any changes and revisions to the FIRMs, and all requests for LOMRs must be made through King County DDES. Since this process can be lengthy, the Letter of Map Amendment (LOMA) process is more widely selected by individuals seeking any changes.

**What Happens to structures that existed before the NFIP?**

The floodplain management measures only affect existing buildings being modified, or that are being substantially improved. Customers may also contact the King County DDES Flood Inquiry Line at 206-296-6606 for further clarification. Please allow a five-day response time.

**What other resources are available to property owners concerned about flooding?**

Staff at the National Flood Insurance Program (1-800-427-4661) are able to answer general questions about flood insurance rules and regulations and make referrals for local insurance agent locations. Insurance quotes are not provided. If customers have a question about maps or whether a property is located within a floodplain zone, they may visit the FEMA Web site at [www.fema.gov](http://www.fema.gov). Customers can also contact King County staff at DDES (206-296-6600) or the Water and Land Resources Division (WLRD) Drainage Investigation Unit (206-296-1900) to determine if a consultation is needed to address concerns.



### Other bulletins and telephone numbers that may be helpful

Bulletin 1	Building and Development Permit Telephone Numbers
Bulletin 8	Commercial/Multi-Family Building Permits
Bulletin 9	Obtaining a Residential Building Permit
Bulletin 9A	Express Processing For Small Projects
Bulletin 10	Residential Building On or Near Waterfront: Additional Requirements
Bulletin 12	Residential Building Process
Bulletin 16	Shoreline Erosion Control
Bulletin 21	Critical Areas Review
Bulletin 26	SEPA Process
Bulletin 28	Clearing and Grading Permits
Bulletin 29	Drainage Review

These and other DDES bulletins are available via the department Web site at [www.kingcounty.gov/permits](http://www.kingcounty.gov/permits).

206-296-6600	DDES Permit Center
206-296-6606	DDES Flood Inquiry
206-296-6640	DDES Drainage Review Unit

206-296-4535	King County Department of Transportation – Road Services King County Flood Warning Center
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1-800-768-7932  
(Toll-Free)

1-800-KC-ROADS  
(1-800-527-6237)  
(Toll-Free 24 hours)

1-800-427-4661	Insurance Questions - National Flood Insurance Program
425-487-4678	FEMA – Flood Insurance and Mitigation Division
1-877-FEMA MAP (1-877-336-2627)	FEMA Map Assistance Center

425-462-9600	King County Library Quick Information Line
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King County complies with the Americans with Disabilities Act (ADA). If you require an accommodation to attend a meeting (two weeks' notice) or require this information in Braille, audiocassette, or large print, please call 206-296-6600 or TTY 206-296-7217.