

Seattle Permits

— part of a multi-departmental City of Seattle series on getting a permit

Construction and Development in Floodplains

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Floodplain Regulations

Seattle's Floodplain Development Ordinance (FDO) Seattle Municipal Code Chapter 25.06 imposes standards and restrictions for construction and development in designated special flood hazard areas in the city. The areas affected by the regulations are located within the designated 100-year floodplain along Thornton, Pipers and Longfellow Creeks, in the South Park area along the Duwamish Waterway, and along the coastline of Puget Sound. These special flood hazard areas are identified by the letters A or V on the Flood Insurance Rate Map (FIRM). The flood regulations create permit requirements for new construction that applicants having property located in the designated areas should be familiar with.

The City of Seattle participates in the National Flood Insurance Program (NFIP), which is managed by the Mitigation Division, a component of the Federal Emergency Management Agency (FEMA). The three parts of the NFIP are:

- flood insurance
- floodplain management
- flood hazard mapping

The City's involvement in the NFIP includes adopting and enforcing floodplain management ordinances to reduce future flood damage. SDCI adopted the FDO in 1989 and revised it in 2004. The FDO regulates development in the 100-year floodplain. The main purposes are:

- to protect human life and health
- to prevent increased flood or drainage hazards
- to protect buildings from damage

- to decrease taxpayer costs related to flood control projects, flood damage repairs, and rescue operations
- to maintain property values
- to make federal flood insurance available

How to Determine Whether Property is in a Designated Floodplain

Seattle areas affected by the FDO are shown in FIRMs, detailed maps maintained and updated by FEMA's Federal Insurance and Mitigation Administration's Hazard Mapping Division. FEMA uses FIRMs to determine the flood risk property owners face.

These maps can be viewed online, at the FEMA Flood Map Service Center: <https://msc.fema.gov>.

Seattle's FDO and the Environmentally Critical Areas (ECA) regulations define flood-prone areas as those areas that would likely be covered with or carry water as a result of a 100-year storm event, or that would have a 1% or greater chance of being covered with or of carrying water in any given year based on current circumstances or maximum development permitted under existing zoning.

Those wishing to determine whether a property is located in a designated floodplain should first check SDCI's flood-prone areas ECA maps. The FIRM may then be reviewed for more detailed information, including base flood elevations in some areas. However, the official floodplain maps are the FEMA prepared FIRM maps.

Although FEMA uses the most accurate flood hazard information available, limitations of scale or topographic definition of the source maps used to prepare the FIRM may cause small areas that are at or above the flood elevation to be inadvertently shown within the Special Flood Hazard Areas (SFHA) boundaries to an elevation at or below the flood elevation. When this happens, structures or parcels of land may be unintentionally included in the SFHA on the FIRM.

Owners disputing the designation of their property as being located within a floodplain area can apply for a "Letter of Map Amendment" (LOMA) or a "Letter of Map Revision – based on Fill" (LOMA-R) by visiting the FEMA



Map Assistance Center's website at <https://msc.fema.gov/portal/home>. The City of Seattle does not have the authority to amend a FIRM as this can only be done through FEMA.

Permit Requirements for Construction or Development in Designated Floodplains

Before construction or development is begun on private property in a designated floodplain, a permit or a license must be obtained from SDCI for the work. Construction or development in a floodplain area requiring SDCI approval includes subdivisions, buildings, structures, some types of landscaping, and paving or grading of any kind.

For construction or development work which requires some other permit—such as a Master Use, building, electrical or grading permit—the floodplain review will be done automatically as a component of the other permit. No separate application or permit is required, although an additional fee must be paid. In addition, permits may be required by SDCI if the work is to occur in an ECA that is also designated as a floodplain area. It is recommended that you confer with SDCI staff at the Applicant Services Center (ASC) located on the 20th floor of the Seattle Municipal Tower, 700 Fifth Ave., (206) 684-8850, to determine whether your project is within an ECA.

For construction or development work which does not require some other permit, SDCI will issue a Floodplain Development License for approved work in a floodplain area. A fee will be required for the license. Before enactment of the FDO in March 1989, the City did not require that a property applicant obtain a Floodplain Development License in order to do work in a designated floodplain.

Persons interested in determining whether their proposed project requires floodplain approval should review SDCI Director's Rule (DR) 8-89, which explains FDO exceptions. DR 8-89 is available online in our Director's Rule website at <http://web6.seattle.gov/dpd/dirrulesviewer/>.

Types of Work that May Not Need Other Permits that Require a Floodplain Development License

SDCI may require permits if the work is to occur in an ECA that is also designated as a floodplain area. To ensure that you are in compliance with the codes it is advised that you review the various SMC codes and confer with SDCI staff before proceeding with the work. Research the matter with the ASC.

The following types of activity are examples of development that may not need some other permit but must have a Floodplain Development License if they occur within a designated floodplain area but not in any other designated ECA such as a riparian corridor. These examples are not meant to be a comprehensive list of types of development which require the license.

- construction or removal of a storage shed with roof area of less than 120 square feet
- construction or removal of a fence or wall less than 8 feet in height
- construction or removal of a retaining wall or rockery less than 4 feet in height
- pouring a concrete slab on grade or driveway
- grading work of any type or amount
- installation of playground equipment
- some types of landscaping work in a floodplain area (see SDCI DR 6-2009 for landscaping standards)

Standards for Construction or Development in Designated Floodplains

In order to obtain approval for any development or construction in a designated floodplain area, the applicant must demonstrate that the proposed construction or grading meets the standards of both the FDO (SMC 25.06) and ECA regulations (SMC 25.09).

Applicants should refer to the ordinances or contact SDCI for specific standards that may apply to their proposed project. Generally, the standards and requirements can be summarized as follows:

- All development is prohibited within the floodway per SMC 25.09.120 A.
- The lowest floor of residential structures must be elevated to 2 feet above the 100-year flood level. This includes new construction or substantial improvements (50% or greater of the market value) to any residential structure.
- The lowest floor of nonresidential structures must be elevated or flood proofed to 2 feet above the 100 year flood level. This includes new construction or substantial improvements (50% or greater of the market value) to any residential structure.
- Utilities must be designed and otherwise elevated or located so as to be resistant to flood damage.
- A drainage-control plan is required for all proposed development within a designated floodplain area.

Elevation Certificate

As part of the agreement between the City and FEMA for making flood insurance available in a community, the NFIP requires the community adopt a floodplain management ordinance that specifies minimum requirements for reducing flood losses. One such requirement is for the City to obtain the elevation of the lowest floor (including basement) of all new and substantially improved buildings and maintain a record of such information. The Elevation Certificate provides a way for the City to comply with this requirement.

The Elevation Certificate is an important administrative tool of the NFIP. It is used to provide elevation information necessary to ensure compliance with Seattle's FDO to determine the proper insurance premium rate, and to support a request for a LOMA or LOMR-F.

This certificate is required in order to properly rate post-FIRM buildings, which are buildings constructed after publication of the FIRM, for flood insurance Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, and AR/AO. The Elevation Certificate is not required for pre-FIRM buildings unless the building is being rated under the optional post-FIRM flood insurance rules.

Use of this certificate does not provide a waiver of the flood insurance purchase requirement. Only a LOMA or LOMR-F from FEMA can amend the FIRM and remove the federal mandate for a lending institution to require the purchase of flood insurance. However, the lending institution has the option of requiring flood insurance even if a LOMA/LOMR-F has been issued by FEMA. The Elevation Certificate may be used to support a LOMA or LOMR-F request. Lowest floor and lowest adjacent grade elevations certified by a surveyor or engineer will be required if the certificate is used to support a LOMA or LOMR-F request.

Flood Proofing Certificate

The Elevation Certificate is used only to certify building elevations. A separate certificate is required for flood proofing. Under the NFIP, non-residential buildings can be flood proofed up to or above the Base Flood Elevation (BFE). A flood-proofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE. Flood proofing of residential buildings is not permitted under the NFIP unless FEMA has granted the community an exception for residential flood-proofed basements. The community must adopt standards for design and construction of flood-proofed basements before FEMA will grant a basement exception. For both flood-proofed

non-residential buildings and residential flood-proofed basements in communities that have been granted an exception by FEMA, a flood proofing certificate is required.

Elevation Certificates are available online at www.fema.gov/elevation-certificate.

Applying for Approval of Construction or Development in a Designated Floodplain

A property owner who wishes to do construction or development in a designated floodplain may apply for approval at SDCI's ASC. Attached to this Tip is a **Floodplain Development Checklist** of application materials generally required for development in floodplain areas.

Applicants wishing to apply for a Floodplain Development License generally only need to provide the materials described in items 1, 3 and 7. Applicants who seek floodplain development approval as a component of a Master Use, building, grading or other SDCI permit may need to provide all of the items listed, depending on the nature of the project.

Questions?

Questions about the Floodplain Development Ordinance or the requirements for floodplain development approvals should be directed to a SDCI land use planner in the ASC, located on the 20th floor of Seattle Municipal Tower, 700 Fifth Ave., (206) 684-8850.

For information about the FEMA National Flood Insurance Program visit www.fema.gov/national-flood-insurance-program.

Floodplain Development Intake Checklist

Access to Information

Links to electronic versions of SDCI Tips, Director's Rules, and the Seattle Municipal Code are available on the "Tools & Resources" page of our website at www.seattle.gov/sdci.

The following items must generally be included in application materials for approval of development in a designated floodplain or floodway:

1. _____ Plot plan showing FLOODPLAIN and FLOODWAY boundaries, if applicable, and location of all development, including structures, existing and proposed. Refer to Tip 103 for requirements for basic plot plans.
2. _____ If structures are to be constructed or substantially improved, an elevation survey prepared by a licensed surveyor showing:
 - a. BASE FLOOD ELEVATIONS, if available in the Floodplain Maps or Study;
 - b. ELEVATION of lowest floor, including basement, of all structures;
 - c. ELEVATION to which structure is or will be flood proofed.
3. _____ Description of any watercourse alteration included in development
4. _____ Federal and/or State approvals obtained by applicant (U.S. Corps of Engineers, State Hydrological approval [HPA], Department of Fisheries)
5. _____ Plans showing technical data concerning design and construction to avoid flood damage (see sections 100 through 130 of Floodplain Development Ordinance)
6. _____ Certification of registered professional architect or engineer if plans include the following:
 - a. Any portion of structure is FLOODPROOFED;
 - b. Structure includes fully enclosed areas below lowest floor and minimum criteria of section 110(a)(2) for equalizing hydrostatic forces not met;
 - c. Any development encroaches on floodway.
7. _____ Drainage Control Plan
8. _____ Floodplain Development Fee