

DOGAMI Fact Sheet Base Flood Elevation Determinations



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The Oregon Department of Geology and Mineral Industries offers base flood elevation determinations that are precise, cost-effective, timely and recognized as authoritative by FEMA for its National Flood Insurance Program.

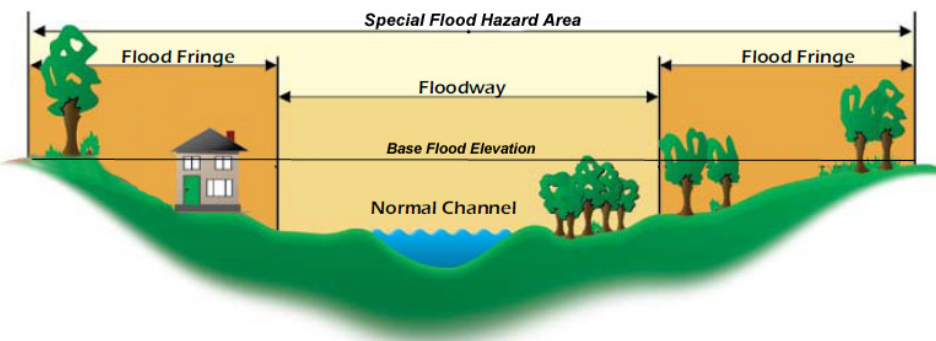
The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps that identify special flood hazard areas where flood insurance is required for structures with federally backed mortgages.

Many of the rate maps for Oregon haven't been revised since the 1970s and 1980s, and may incorrectly show homes or other insured structures in the special flood hazard area. Modern mapping technology has dramatically improved accuracy.

Determining the base flood elevation and working with a professional land surveyor to measure the structure's elevation are necessary steps in documenting whether a structure is above a base flood elevation.



Aerial view of flooding on the Willamette River in February 1996
Photo: National Weather Service Portland



Cross-section view of the SFHA and its components.

Terms to Know

Flood Insurance Rate Map (FIRM): Map published by the Federal Emergency Management Agency to depict special flood hazard areas.

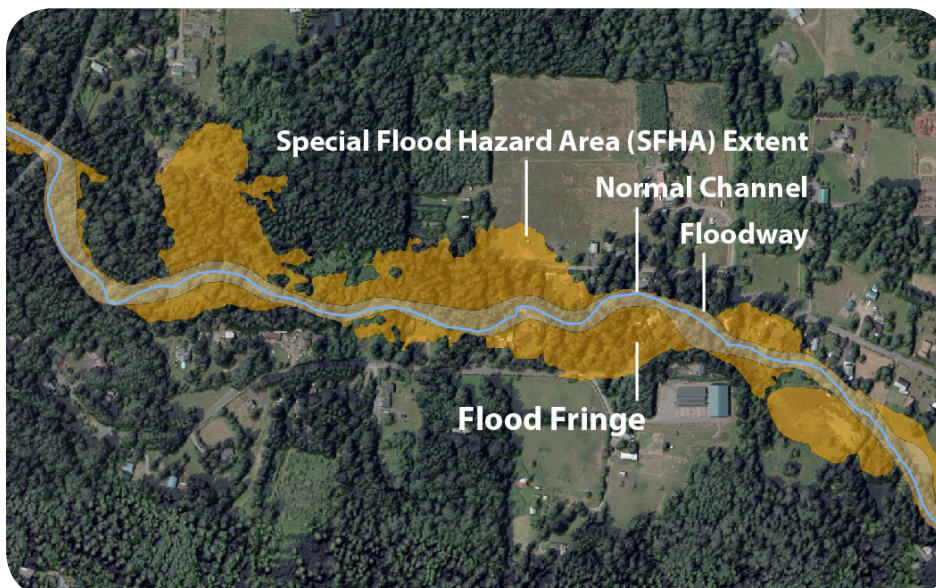
Special Flood Hazard Area (SFHA): Area where flood insurance is typically required for structures with federally-backed mortgages. The SFHA represents inundation from a given flooding source, such as a river, ocean, or lake, during a 1 percent annual chance probability (aka 100-year) flood event.

Detailed and approximate SFHA methods: The SFHA can be mapped by either detailed or approximate methods. Base flood elevations are published for detailed SFHAs, but have not been determined for approximate SFHAs, such as Zone A.

Base Flood Elevation: Elevation of the 100-year flood event at a specific location in the SFHA.

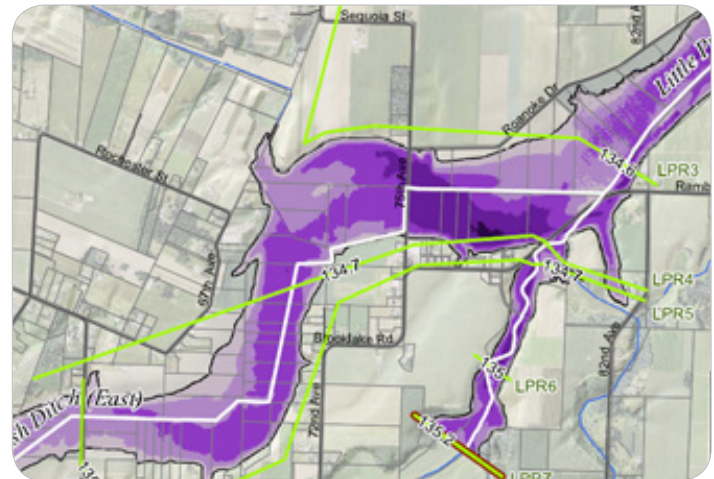
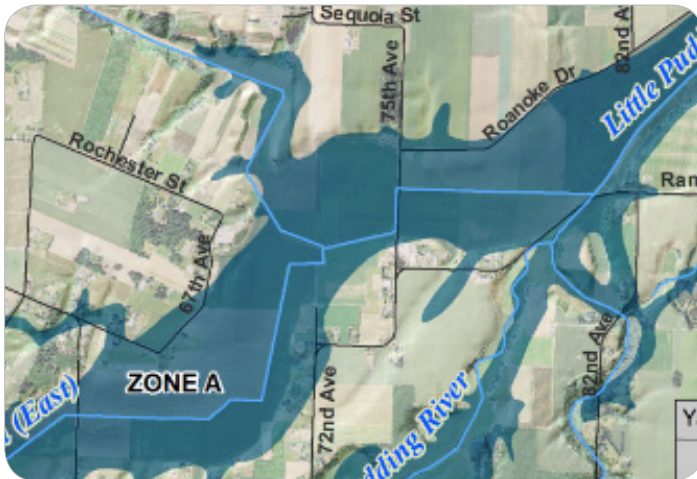
Federally backed mortgages: Mortgages loans issued by federally qualified lenders and insured by government agencies, such as the Federal Housing Administration.

Letter of Map Amendment (LOMA): Letter to FEMA that documents a structure is above the nearest BFE.



Map view of the SFHA and its components.

DOGAMI's Modern Mapping Technology Dramatically Improves Flood Zone Accuracy



Little Pudding River flood mapping comparison. (left) Zone A Special Flood Hazard Area mapped by FEMA in 2003. (right) DOGAMI BFE product for same area. Purple gradient indicates flood depths from 0 to 8 feet in 2 foot increments. Visit www.oregongeology.org/flood for a map/list of locations already mapped.

DOGAMI BFE Determination Services

While FEMA publishes BFEs for special flood hazard areas mapped using detailed methods, BFEs have not been determined for areas such as Zone A. The Oregon Department of Geology and Mineral Industries (DOGAMI) is recognized by FEMA as an authoritative source of BFE determinations. DOGAMI's BFE determination services include:

► BFE Determinations

Local officials, professional land surveyors, or professional engineers can request evaluation of whether a BFE can be determined. If DOGAMI can determine a BFE, the service is provided for a minimum fee of \$2,000 for up to three stream miles, with a fee of \$500 per additional stream mile. Within 60 days of signing a service agreement, DOGAMI will provide a study map, summary report, BFE determination letter(s), and an data analysis package (in GIS format) to the requester.

► BFE Determination Letters

If DOGAMI has already developed new Zone A mapping, BFE determination letters are available for a fee of \$50. A map will be included with the letter that shows the relationship of the BFE to the property or structure of interest. Note that local officials often have the BFE information in these areas and may provide a BFE determination letter free of charge.

Other BFE Determination Resources

Your local land use authority may already have BFE information, and may provide a determination letter free of charge. Local officials may also be aware of other State or Federal agencies, such as the Oregon Water Resources Department, Oregon Department of Transportation, U.S. Army Corps of Engineers, or U.S. Geological Survey, that have developed BFEs for your area of interest. For developments of less than 50 lots or five acres, where BFEs are unavailable from DOGAMI or other agencies, FEMA may be able to provide a BFE determination. For more information, visit FEMA's Letter of Map Amendment (LOMA) webpage.

Base Flood Elevation Determination Disclaimer

The Oregon Department of Geology and Mineral Industries is not liable for any claimed damage from the use of this determination or associated products. The Federal Emergency Management Agency may, at any time in the future, revise base flood elevations for the study area. Determination does not supersede any existing or future detailed analyses performed by a licensed professional engineer. Determination and supporting analyses do not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. Determination will not guarantee removal of a structure from the special flood hazard area.

Links

The National Flood Insurance Program (NFIP)
bit.ly/nationalflood

FEMA Map Service Center
www.msc.fema.gov

FEMA's Letter of Map Amendment (LOMA) process
bit.ly/mapamendment

Full description of FEMA's flood zone designations
www.fema.gov/floodplain-management/flood-zones

DOGAMI Base Flood Elevation Determination map and publications
www.oregongeology.org/flood



The National Flood Insurance Program (NFIP) is managed by FEMA, a component of the U.S. Department of Homeland Security (DHS).

