



FREQUENTLY FLOODED AREAS

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A 2012 Critical Areas Update Fact Sheet

FLOODING IN THURSTON COUNTY

Thurston County experiences many types of flooding. Examples include river flooding, where a river breaches its banks, and groundwater flooding, where the water table rises so high it fills low-lying pockets of land. Thurston County has been declared a federal disaster area for floods 14 times since 1972. River flooding comes primarily from the Nisqually, Deschutes, Skookumchuck, Black and Chehalis rivers. The devastating potential of local floods was demonstrated in December 2007, when Chehalis River flooding in the Rochester area caused more than \$3 million in damage to 165 homes, and 63 county residents had to be rescued.

River and stream channels may also shift – or “migrate” – over time and direct water to properties that have in recent years remained dry. Some streams in Thurston County move around quite a bit and have the force to destroy houses and other structures in their way.

THE IMPORTANCE OF FLOODPLAINS

Floodplain lands and adjacent waters form a complex, dynamic physical and biological system found nowhere else. When portions of floodplains are preserved in their natural state, or restored to it, they provide many benefits to both human and natural systems.

Some benefits are static – such as improving the aesthetics of the landscape – and some are active processes, such as reducing the number and severity of floods. An undeveloped, vegetated floodplain reduces the force, height and volume of floodwaters by allowing floodwaters to spread out horizontally and relatively harmlessly across the floodplain.

Certain areas of Thurston County are also prone to groundwater flooding, particularly in the Salmon Creek Drainage Basin in south-central Thurston County. During the rainy seasons of 1996-97 and 1998-99, groundwater flooding in the basin caused failed septic systems and contaminated drinking water, and restricted residents’ access to property.



The potential amendments seek to protect residents and property from flooding, and to preserve floodplains as a natural means of flood control.

In addition, floodplains help improve water quality by slowing stormwater runoff and reducing nonpoint water pollution. When floodwater slows down along a floodplain, sediments have time to settle out of the water. The natural vegetation in floodplains also filters out impurities and uses excess nutrients. Floodplains support a high rate of plant growth and provide important habitats for fish and wildlife.

HOW DO I KNOW IF I HAVE A FREQUENTLY FLOODED AREA ON MY PROPERTY?

Approximate locations of some critical areas in Thurston County are available in the Resource Stewardship Permit Assistance Center and may also be shown on Thurston County's GeoData website: www.geodata.org. It is important to note that maps are intended to be used as a guide and do not provide a definitive designation. You may call the Thurston County Permit Assistance Center at (360) 786-5490 or visit the Permit Assistance Center in Building 1 of the Thurston County courthouse complex, 2000 Lakeridge Drive S.W. in Olympia. The Permit Assistance Center is open from 8 a.m. to 12:30, Monday through Friday.

Thurston County also offers a critical area review service whereby a staff member will visit a property to help identify critical areas and the possible buildable area before a property owner submits a permit application. This service, subject to fees, helps property owners develop better site plans. A more rigorous environmental review of the site plan itself is conducted during the permit-review process.

THE DIFFERENCE BETWEEN FLOODWAYS, FLOODPLAINS AND CHANNEL MIGRATION AREAS

A floodway is the channel of a river or other watercourse that carries the deepest, fastest water downstream. Floodways are located in floodplains, which are areas that are susceptible to being inundated by floodwaters.

The channel migration area refers to the geographic area where a stream or river has been and will be susceptible to channel erosion and/or channel occupation (see page 4 for an illustration of channel migration areas).

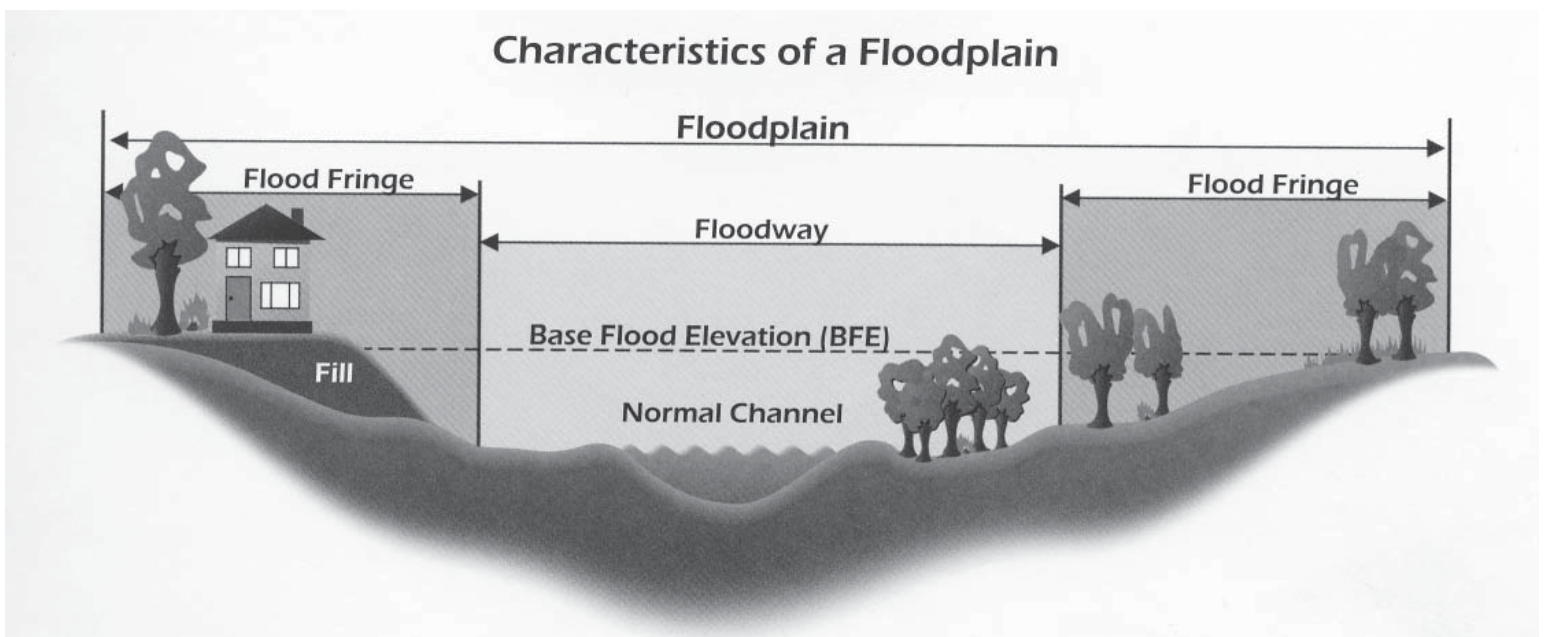


Image courtesy FEMA NFIP Guidebook

IMPORTANT THINGS TO KNOW ABOUT FLOODPLAINS AND CHANNEL MIGRATION AREAS

- The potential amendments identify river floodplains according to flood of record and current Flood Insurance Rate Maps prepared by the Federal Emergency Management Administration (FEMA).
- **New homes/structures:** In order to reduce risks associated with flooding and to set aside areas where stream courses naturally fluctuate, new projects could not encroach on a floodplain or channel migration area. Floodplains and channel migration areas are also frequently associated with streams, their riparian habitats, and wetlands. More information on these areas can be found in separate fact sheets, which are available by clicking the “Critical Areas Update” link of www.ThurstonPlanning.org.
- **Repairs, maintenance, alteration of existing homes/structures:** Buildings already located within existing floodplains or channel migration areas could be repaired, maintained or altered. If the building is completely within the floodplain or channel migration area, the repairs, maintenance or alterations would need to occur within the existing footprint. If a portion of the building lies outside the floodplain or channel migration area, the footprint could be expanded in that area, subject to Thurston County building codes (14.38 TCC).
- **Restoration or rebuilding due to a natural disaster or accidental destruction:** Restoration or rebuilding of legally established structures located wholly within a floodplain and damaged beyond repair or destroyed by accident, fire, explosion or flooding could be allowed, subject to conditions and in accordance with Thurston County’s Building and Construction Code (Title 14 TCC).
- **Owner initiated restoration or rebuilding:** For proposed reconstruction, replacement, or alteration other than a natural disaster or accidental destruction, structures with more than 50 percent damage or replacement would be treated as new structures and would have to be repaired or rebuilt in accordance with current state and local ordinances that regulate new construction in a floodplain. (The 50 percent is based on the fair market value prior to the damage or reconstruction occurring.) Thurston County’s and FEMA’s goal is to protect homeowners from rebuilding in dangerous flood-prone areas and to avoid repetitive losses.
- When approved, clearing and grading activities within floodplains and channel migration areas could occur only to the minimum amount necessary to accommodate a permitted project. Property owners could continue to maintain lawfully established lawns, landscaping and gardens.

CHANNEL MIGRATION REQUIREMENTS

Over time, rivers and stream channels move as water carves away at the earth’s surface. Channel migration is usually found along a small percentage of the entire stream network.

In channel migration areas, development is currently regulated from the ordinary high water mark out to a distance that equals 100 times the annual rate of erosion. The potential amendments would create a 100-foot management zone adjacent to this channel migration hazard area. Within this zone, standards would be set for uses or activities that would

generate excessive nutrients, sediments, or pollutants that could reach the channel migration hazard area, the riparian area or stream, or that could significantly alter the quantity or the timing of water reaching the stream. An illustration is provided on the next page.

Also, please see the companion “Riparian Areas” fact sheet for information about riparian areas (river and stream buffers) and channel migration areas. All fact sheets are available by clicking the “Critical Areas Update” link of www.ThurstonPlanning.org.



In the past, riparian habitat areas have been referred to as buffers, and the terms are still used interchangeably in some cases.

HIGH GROUNDWATER AREAS

The existing Critical Areas Ordinance limits development within areas that are mapped as high groundwater flooding areas – this would remain the same under the potential amendments.

The potential amendments would, however, change restrictions near high groundwater areas to be consistent with Best Available Science. The current Critical Areas Ordinance draws a 300-foot boundary around high groundwater flooding areas. Within the

boundary, structures must be set back 50 feet from, and 2 feet above, the known high groundwater flood elevation.

The potential amendments would take a more precise approach. The boundary would be drawn from the flood area outward until the land is 2 feet higher than the high groundwater flood elevation, rather than just assuming 300 feet is necessary. Structures within that new boundary would have to be set back 50 feet from, or 2 feet above, the known flood elevation.

BEST AVAILABLE SCIENCE

The potential amendments are based on scientific information that is already deemed Best Available Science by the state and federal governments, Growth Management Hearings boards, courts, and other western Washington counties. A list of sources is posted on the “Critical Areas Update” link of www.thurstonplanning.org.

CONTACT INFORMATION

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