



CITY OF SUMAS

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Sumas Resident,

As a resident or property owner in the City of Sumas, it is important to understand that the City of Sumas is in a floodplain. Information is mailed out annually to help residents understand the causes of flooding and how to better prepare for future flooding events that may occur. While there are still many unknowns, the City of Sumas has always strived to educate and assist its citizens on how to live in and develop in a floodplain area. Please review the information included and keep it readily available for when and if you need to reference this information again.

Overview

Whatcom County features one large river and smaller tributaries, or streams, that are susceptible to annual flooding events that pose threats to life and safety and cause significant property damage. The large river is the Nooksack, while streams include Johnson Creek, Sumas Creek, Bone Creek and the Sumas River. Snow melt from the Cascade Mountain range contributes substantially to flooding, and ongoing development within the County continues to displace natural areas that historically functioned as flood storage.

Recent Flooding Events

While some sort of seasonal flood-related damage occurs nearly every year, in November of 2021 Sumas experienced its most significant flooding to occur in Whatcom County history. Snow melt combined with several weather systems referred to as an “atmospheric river,” caused the Nooksack River Watershed to swell and flow over the levee which raised the level of many rivers and creeks throughout the area. The flood waters spread through Everson to the Sumas River drainage systems, pushing the water into the City of Sumas and its surrounding areas. The damages to homes and businesses were significant, affecting over eighty percent of properties within the Sumas City limits.

Causes of Flooding in Whatcom County

Flooding occurs when climate (or weather patterns), geology, and hydrology combine to create conditions where river and stream waters flow outside of their usual course and “overspill” beyond their banks. In Whatcom County, the combination of these factors, augmented by ongoing development, create chronic seasonal flooding conditions. Whatcom County spans a wide range of climatic and geologic regions that results in considerable variation in precipitation, the primary factor of which is elevation. Moving east from Birch Bay at 0 feet above sea level to Mt. Baker at 10,235 feet above sea level, annual precipitation averages range from 47.06 inches to over 124.52 inches, respectively. Mt. Baker snowmelt provides a continuous water source throughout the year and can contribute significantly to the development of flooding.

Flooding is most common from October through April, when storms from the Pacific Ocean, bring intense rainfall to the area. Whatcom County receives approximately 40 inches of rain on average each year. Larger floods result from heavy rains that continue over the course of several days, augmented by snowmelt at a time when the soil is near saturation from previous rains. Frozen topsoil also contributes to the frequency of floods.

Riverine flooding and urban flooding are the two types of flooding that primarily affect Whatcom County. Riverine flooding is the overbank flooding of rivers and streams, the natural processes of which add sediment and nutrients to fertile floodplain areas. Urban flooding results from the conversion of land from fields or woodlands to parking lots and roads, through which the land loses its ability to absorb rainfall.

Flood Insurance

The City of Sumas participates in the National Flood Insurance Program (NFIP) that makes available federally backed flood insurance for all structures, whether or not they are located within the floodplain. More than 5% of NFIP claims are filed by properties located outside the 100-year floodplain, also known as the Special Flood Hazard Area (SFHA). Following the purchase of flood insurance, NFIP imposes a 30-day waiting period, so residents should purchase insurance before the onset of the rainy season to ensure coverage during the flooding.

Membership within NFIP – and the availability to City residents of flood insurance – requires the City to manage its floodplain in ways that meet or exceed standards set by FEMA. NFIP insures building two types of coverage: structural and contents. Structural coverage includes walls, floors, insulation, furnace, and other items permanently attached to the structure. Contents coverage may be purchased separately to cover the contents of an insurable building. Flood insurance also pays a portion of the costs of actions taken to prevent flood damage.

Since July 1, 1997, all NFIP policies include Increased Cost of Compliance coverage that assists with bringing structures into compliance with current building standards, such as elevating structures 1 foot or more above the height of the 100-year flood. The limit of this coverage is \$30,000.

Federal financial assistance requires the purchase of flood insurance for buildings located within the SFHA – a requirement that affects nearly all mortgages financed through commercial lending institutions. This mandatory requirement stipulates that structural coverage be purchased equal to the amount of the loan, or other financial assistance, or for the maximum amount available, which is currently \$250,000 for a single-family residence. While the mandatory flood insurance purchase requirement has been in effect for many years, not all lending institutions required flood insurance in the past. Today, however, most institutions are now requiring the flood insurance purchase, and some are reviewing all mortgage loans to determine whether flood insurance is required and should have been required in the past. Upon refinancing a loan, nearly all lending institutions will enforce the flood insurance requirement. It is the lender's responsibility to check the Flood Insurance Rate Map (FIRM) to determine whether a structure is within the SFHA.

The mandatory flood insurance purchase requirement does not apply to loans or financial assistance for items that are not eligible for flood insurance, such as vehicles, business expenses, landscaping, and

vacant lots. The requirement also does not apply to loans for structures not located in a SFHA, even though a portion of the lot may be within a SFHA. Persons located within SFHA's who received disaster assistance after Sept. 23, 1994, for flood losses to real or personal property must purchase and maintain flood insurance coverage, otherwise future disaster assistance will be denied.

Floodplain Understanding and Regulation

Maintaining the flow capacity in streams that cross County properties requires cooperation and assistance to prevent flooding and bank erosion. Following are some suggestions and information to understand the ways that floodplains function and how the County regulates the floodplain to protect property and lives, while affording County citizens the ability to obtain floodplain insurance.

Do not dump or throw anything into ditches or streams: A plugged channel cannot carry water, and when it rains, the excess water must go somewhere. Trash and vegetation dumped into a stream degrades water quality of both the stream itself and its receiving waters, and every piece of trash contributes to flooding. All three surface water management agencies that serve the urban areas of the County have adopted and enforce regulations that prohibit the dumping of materials into any natural or manmade component of the drainage system. Additionally, the County has adopted and enforces regulations that prohibit the illegal dumping of material, including material dumped into ditches, streams, or other drainage ways. Please report any observations of the dumping of debris or other objects into streams, drainage ways, or rivers to the City of Sumas at (360)988-5711.

Remove debris, trash, loose branches, and vegetation: Keep banks clear of brush and debris to help maintain an unobstructed flow of water in stream channels. Do not, however, remove vegetation that is actively growing on a stream bank. Streamside vegetation is tightly regulated by local, state, and federal regulations. Before undertaking any removal of streamside vegetation, contact City Hall. Please report any observations of the clearing of vegetation or trees on stream banks to the City Public Works Dept.

Obtain a floodplain development permit and / or building permit, if required: To minimize damage to structures during flood events, the City requires all new construction in the floodplain to be anchored against movement by floodwaters, resistant to flood forces, constructed with flood-resistant materials and flood-proofed or elevated so that the first floor of living space, as well as all mechanical and services, is at least 1 foot above the elevation of the 100-year flood. These standards apply to new structures and to substantial improvements of existing structures. The City defines a Substantial Improvement as any reconstruction, rehabilitation, or addition to an existing structure, the cost of which exceeds 50 percent of the structure's appraised or the Assessor's market value (whichever the builder chooses to use). Additionally, most other types of development within the floodplain also require a floodplain development permit, such as grading, cut and fill, installation of riprap and other bank stabilization techniques. City staff are available to undertake site visits, if requested, to review flood, drainage, and sewer issues. Contact the City Hall for further information and prior to undertaking any such activity within the floodplain.

Recognize the natural and beneficial functions of floodplains to help reduce flooding: Floodplains are a natural component of the Whatcom County environment. Understanding and protecting the natural functions of floodplains helps reduce flood damage and protect resources. When flooding spreads out across the floodplain, its energy is dissipated, which results in lower flood flows downstream, reduced

erosion of the stream bank and channel, deposition of sediments higher in the watershed and improved groundwater recharge. Floodplains are scenic, valued wildlife habitat, and suitable for farming. Poorly planned development in floodplains can lead to stream bank erosion, loss of valuable property, increased risk of flooding to downstream properties and degradation of water quality.

Reduce risk of damage to homes: Practical and cost-effective methods for reducing or eliminating the risk of flooding are available to property owners whose homes have experienced damage from flooding in the past or may experience damage in the future. Such techniques include elevation of the home, relocating the home to higher ground, flood-proofing and protecting utilities. For further information, contact the City Hall Planning Dept. at (360)988-5711 and the Federal Emergency Management Agency, Region 10 at (425) 487-4600. During times of flooding, homes that have not been retrofitted can be protected during emergencies by the installation of sandbags. For further information about sandbags and the locations of sites where sandbags are available during flooding, contact the City Hall. In case of an emergency, call 911.

County Floodplain Information Services: The City can determine the relationship of a particular property to the floodplain, including: 1) whether the property is located within the Special Flood Hazard Area; 2) Flood Insurance Rate Map (FIRM) Zone for property; 3) Base Flood Elevation for property, if available; and 4) whether the property is located within the Floodway. Contact City Hall for further information.

Flood Safety Tips

The County's Emergency Management Department has flood warning information available that can be accessed by calling them at (360) 676-6681, or through their Web site at:

<http://whatcomcounty.us/201/Emergency-Management>. The Web site includes information about sandbag locations and ways to contact and listen to the National Weather Service. It also has an informational brochure that explains how people can prepare for an emergency. Additionally, the County Roads Department has a hotline that features road conditions, road closures and road hazards. Call (360) 380-8111.

Following is a list of important considerations that should be followed during times of flooding:

Prepare an evacuation plan: Before the floodwaters hit, develop an evacuation plan among all members of a household that includes a meeting place outside of the house, as well as an escape route out of the floodplain and away from floodwaters.

Do not walk through flowing water: Drowning is the number one cause of flood deaths, mostly during flash floods. Currents can be deceptive; six inches of moving water can knock you off your feet. If you walk in standing water, use a pole, or stick to ensure that the ground is still there.

Do not drive through a flooded area: More people drown in their cars than anywhere else. Don't drive around road barriers; the road or bridge may be washed out.

Stay away from power lines and electrical wires: The number two flood killer after drowning is electrocution. Electrical current can travel through water. Report downed power lines to the City Hall or the County Emergency Management Office.

Shut off gas and electricity and move valuable contents upstairs: Be prepared in advance with a detailed checklist because warning of an impending flood may provide little time for preparation prior to evacuation.

Look out for animals, especially snakes: small animals that have been flooded out of their homes may seek shelter in yours. Use a pole or stick to poke and turn things over and scare away small animals.

Look before you step: After a flood, the ground and floors are covered with debris including broken bottles and nails. Floors and stairs that have been covered with mud can be very slippery.

Be alert for gas leaks: Use a flashlight to inspect for damage. Don't smoke or use candles, lanterns, or open flames unless you know that the gas has been turned off and the area has been ventilated.

IMPORTANT RESOURCES FOR INFORMATION

- 1) City of Sumas: Phone: (360) 988-5711 Web: www.cityofsumas.com
Facebook: <https://www.facebook.com/sumascityhall>
- 2) Whatcom County Forecast & Current River Conditions:
Web: <http://www.whatcomcounty.us/666/Forecasts-Current-River-Conditions>
- 3) Whatcom County Emergency Management: Phone: (360) 676-6681
Web: <http://whatcomcounty.us/201/Emergency-Management>
- 4) Federal Emergency Management Agency (FEMA)
Region 10 Phone: (425) 487-4600 Web: <http://www.fema.gov/nfip/>
- 5) U. S. Army Corps of Engineers
Phone: (206) 764-3742 Web: <https://www.nws.usace.army.mil/>
- 6) Voyent Alert! Notification System
Register at register.voyent-alert.us

