

# Flooding in Whatcom County

## What to Do Before, During, and After a Flood



### Flood Hazards in Whatcom County

Whatcom County River and Flood Division is sending you this newsletter because your property is located in a 100-year floodplain within Whatcom County, and is at risk of flooding.

The water bodies of Whatcom County are some of our greatest natural assets. But most of them also have the potential to turn into dangerous flood areas during flood season. Most of our floods occur during the fall through the spring, especially between November and February. The Nooksack River and its tributaries impact the largest area of the county, including the overflow corridor between Everson and Sumas. The Sumas River, Samish River, numerous alluvial fan areas, lakes, and coastal areas of Whatcom County are also susceptible to flooding. Significant floods occurred in 1935, 1945, 1951, 1955, 1975, 1989, 1990, and 1995, and more major floods in the future are likely.

### Natural and Beneficial Functions of the Floodplain

The floodplain—the low land adjacent to a river or stream that is susceptible to flooding—is essentially nature’s “safety valve” for managing floods. One of its crucial functions is to store and slow down excess water. When a river has access to its floodplain, floodwaters from rain or snowmelt can spread over a wider area, which both reduces and slows the amount of water heading downstream. However, when the size of the floodplain is reduced by dikes or impervious surfaces from development, the speed, depth, and peak flows of floodwaters increase and may cause greater damage to both natural and manmade resources.

Floodplains are shaped by a river’s movement. In the Nooksack basin, since the Nooksack River has a tendency to shift sideways, the floodplain contains old river channels and side channels that are critical for fish and wildlife, particularly for local salmon runs that use them for spawning and rearing. Old river channels also provide additional storage for floodwaters and sediment, and help to dissipate the force, or energy, of floodwaters.

Fresh sediments deposited by floodwaters on floodplains help to enrich soils, making for fertile agricultural areas.

*Floodwaters invade a residential Gooseberry Point neighborhood in January 2002.*



*A boat motors away from a Marietta barn during the November 1990 flood. (Photo: courtesy of the Bellingham Herald)*

### Flood Warning System

Whatcom County and the National Weather Service work together before and during a potential flood event to try to warn county residents of imminent flooding. If warranted, the Emergency Alert System (EAS) may be activated. The following local stations broadcast emergency information:

- ◆ KGMI – AM 790
- ◆ KISM – FM 92.9
- ◆ KPUG – AM 1170

The Whatcom County Division of Emergency Management records important information on an Incident Hotline during floods and other emergencies. You can reach the hotline at (360) 738-4551. To request sandbags during a flood, please call (360) 676-6681.

If an evacuation is advised, you will be notified either by telephone, the Emergency Alert System, door-to-door visits, or public address systems. During times of heavy rain, listen closely to one of the radio stations listed above, or call the hotline.

If you have internet access, visit these sites for flood information:

- ◆ Weather warnings - [www.wrh.noaa.gov/Seattle](http://www.wrh.noaa.gov/Seattle)
- ◆ River forecast - [www.nwrfc.noaa.gov/data/streamflow/nwrfc/nooksack.html](http://www.nwrfc.noaa.gov/data/streamflow/nwrfc/nooksack.html)
- ◆ River levels - [www.water.usgs.gov/realtime/htmls/nooksack.html](http://www.water.usgs.gov/realtime/htmls/nooksack.html)

#### **This newsletter is published by:**

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[www.whatcomcounty.us/publicworks/riverflood](http://www.whatcomcounty.us/publicworks/riverflood)





# Before a Flood

## Protecting Your Property

Before the flood season starts in earnest, take steps to limit your losses.

- ◆ Buy flood insurance.
- ◆ Elevate your house above the 100-year flood elevation.
- ◆ Floodproof structures—either make them watertight or able to withstand flooding with little or no damage.

- ◆ Construct barriers or berms between the river and your home.
- ◆ Fight floods using sandbags, plywood and plastic during a flood event.

For more details or for help in selecting and planning property protection measures, stop by the Whatcom County River and Flood Division at 322 N. Commercial St., Bellingham, or call (360) 676-6876.

## Flood Insurance

You don't need to live in a floodplain to purchase flood insurance. In fact, because Whatcom County participates in the National Flood Insurance Program (NFIP), any property owner is eligible for flood insurance. About 50% of all flood damages nationwide occur outside of the mapped 100-year floodplain area. Note that flood damage is not covered under standard homeowner's

insurance policies, and lenders require flood insurance for most floodplain home loans.

There is a 30-day waiting period, so contact an insurance agent about getting flood insurance now.

For more information about NFIP visit [www.fema.gov/nfip](http://www.fema.gov/nfip), or call 1-877-FEMA-MAP (1-877-336-2627).

## Floodplain Development Permits

Before you build, remodel, repair, fill or re-grade your property, you should check with the county or city government in which you live as to what permits and conditions will be required. It is always wise to check into requirements before you commit to any plans, construction, or materials.

If your proposed repair or improvement is valued at 50% or

greater of the value of the existing structure, then your improvement is "substantial" and will be considered new construction. To get the latest information or requirements for construction, substantial improvements, or filling and grading in the floodplain, please contact either the River and Flood Division at (360) 676-6876 or Planning and Development Services at (360) 676-6907.

## Drainage System Maintenance

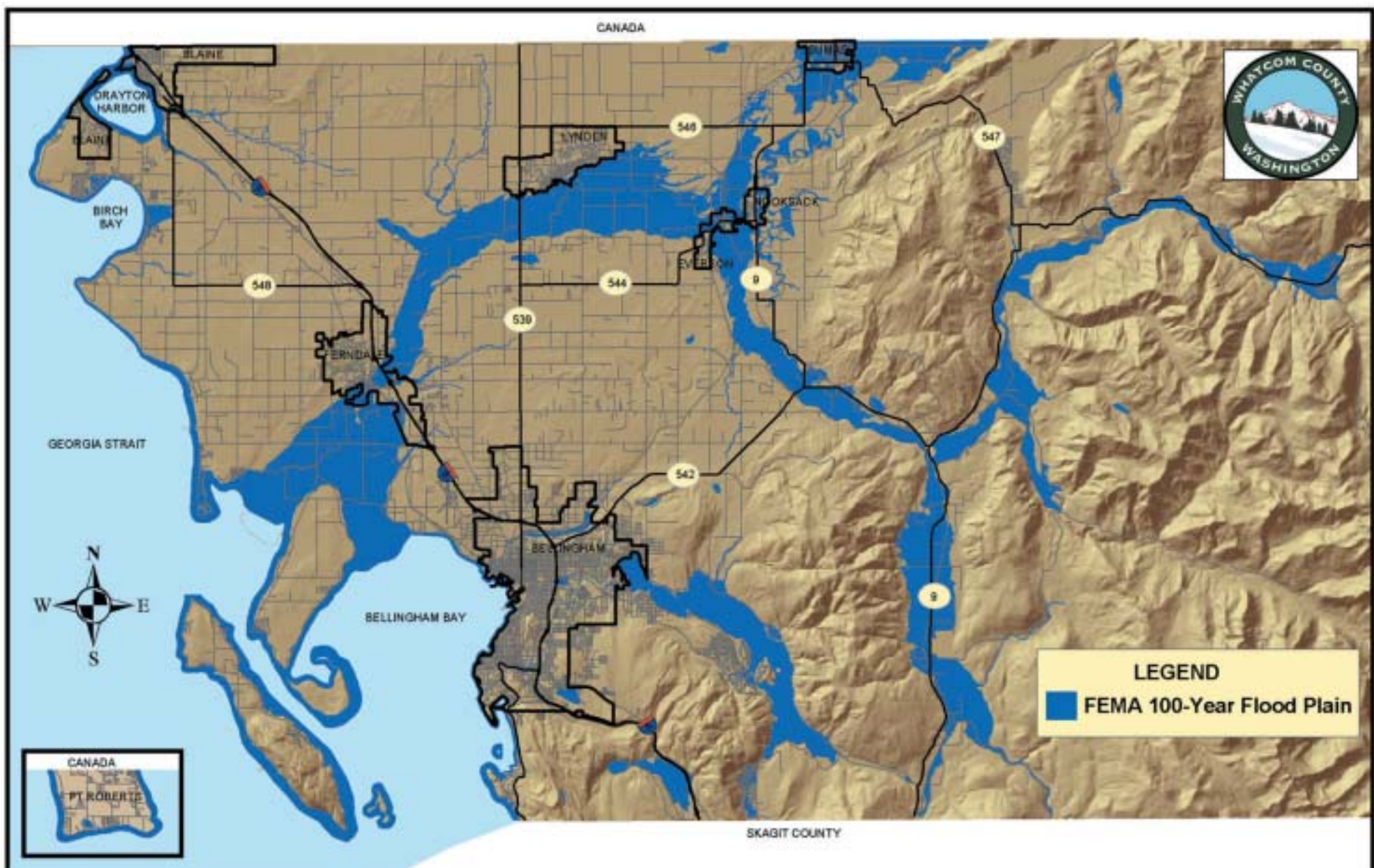
When flooding occurs, a common problem is improper functioning of drainage systems. It is important to clean and repair drainage systems before the floodwater arrives. Removing debris that may clog or

reduce drainage capacity should be done frequently. And never dump or throw anything in ditches, stream or storm drains. A plugged channel cannot carry any water.

## Where Will It Flood?

The blue areas of the maps show Whatcom County's 100-year floodplain—the high-risk flood hazards areas in the county. These areas are lands in the floodplain that have a 1% or greater chance of flooding in any year. If your property is in the 100-year floodplain, it has about a 25% chance of being flooded over the term of a 30-year mortgage.

If you would like more information regarding historic flooding, flood insurance, or flood preparedness, including whether your property or one you may want to purchase is in a floodplain, please contact the River and Flood Division of Whatcom County Public Works at (360) 676-6876, or visit the Reference sections of the Bellingham and Whatcom County public libraries.





# During a Flood

## Flood Watches and Warnings

The National Weather Service issues two types of flood advisories, a flood watch and a flood warning.

A flood WATCH means a flood is possible, though not definite. Fill your car's gas tank in case you need to evacuate, make sure your 72-hour kit is in order (see page 4), and decide where you will go if

you need to evacuate (with friends and relatives in another town, a motel, or a shelter).

A flood WARNING means that a flood is either occurring or will occur within 12 hours. Stay tuned to your radio or TV for updates, advice, and possible evacuation orders.

## Flood Safety

Flooding can be extremely dangerous. It is also unpredictable: a long period of rain could cause slowly rising floodwaters over several hours or days, but a dam or levee failure could cause a rapid and dramatic rise in floodwaters.

To decrease the potential for injury due to flooding:

- ◆ Know the flood warning procedures.
- ◆ Move to a safe area before access is cut off.

- ◆ Don't drive where water is over the road; the road may be washed out.
- ◆ If your vehicle stalls in a flooded area, abandon it if it is safe to do so, and seek higher ground.
- ◆ If you are caught in the house by suddenly rising waters, move to the second floor and, if necessary, the roof.
- ◆ Keep children away from floodwaters, ditches, culverts and storm drains.

## If You Evacuate

- ◆ Secure your home. Cut off all electrical circuits at the fuse panel or disconnect switches. If you can't, turn off or disconnect all electrical appliances. Shut off the water and gas.
- ◆ Pack your disaster supplies kit, prescription drugs, eyeglasses,

clothing, money, identification, child supplies, and personal items.

- ◆ Don't forget about your pets. Most shelters don't allow any animals other than service dogs, so make arrangements before a flood for your household pets.



# After a Flood

## Food and Drinking Water Safety

- ◆ Do not use food or water that has been exposed to floodwaters, which will be contaminated.
- ◆ Until the public water system or your private well has been

declared safe, water for drinking and food preparation should be boiled vigorously for ten minutes.

## Re-Entering Your Home

- ◆ Return home only when local officials say it is safe to do so.
- ◆ Before entering, check for structural damage that could cause collapse. Turn off any outside gas lines at the meter or tank, and let the house air for several minutes.
- ◆ Do not strike a match when entering your home. There may have been a gas leak.
- ◆ Be careful about turning the power on again. Watch for electrical shorts or live wires. Do not use water-damaged appliances.
- ◆ Document your flood losses and contact your insurance agent for flood loss claims.

- ◆ Dry your house slowly. Carpets and drywall may have to be removed. Remember, water can be trapped between walls and will not dry.
- ◆ If your home or business has suffered extensive structural damage, this may be the time to elevate or flood proof the structure.
- ◆ Contact the Whatcom County chapter of the American Red Cross for disaster assistance at (360) 733-3290. The Red Cross provides shelter, food, and health and mental health services to address basic human needs.

Debris from the November 1990 flood lies across Ferndale Road. (Photo: courtesy of the Bellingham Herald)





## Create a 72-Hour Kit

When a disaster strikes, your community emergency services and government agencies may not be able to respond to your needs immediately. Their buildings, equipment, personnel, communications, and mobility



Sandbags can provide temporary protection from floods. During a flood emergency, county residents can request sandbags by calling (360) 676-6681. (Photo: courtesy of the Bellingham Herald)

may be severely hampered by the event. They will be overwhelmed.

Experts warn that you should be prepared to be on your own for a minimum of three days after a disaster. One of the most important elements of this preparedness is the 72-hour kit for your home or office. The contents of this kit will vary, but in every case it should contain the things you need to survive for three days on your own.

Your home 72-hour kit should contain at least the following items:

- ◆ One gallon of water per person per day. This means at least three gallons of water per person.
- ◆ Sufficient non-perishable food for three days. Ideally, these foods will be lightweight and high in energy. If you pack canned foods, remember a can opener!
- ◆ Prescription and non-prescription medications. If you wear glasses, include a spare pair.

- ◆ Battery-powered portable radio. This may be your only source of information during a disaster.
- ◆ First aid kit. The small camping kits work well. Remember to get enough supplies for the number of people who may be using them.
- ◆ Personal hygiene items.
- ◆ Clothing and bedding. A spare pair of socks and a space saver blanket would be a minimum.
- ◆ Special items such as baby needs or contact lens supplies, etc.
- ◆ Personal comfort items. Books, games, personal electronics, etc.

Remember, this is only a bare bones kit. You can add things to this list that you or your family will need.

*This information was taken from the Whatcom County Division of Emergency Management's web site. For more details, visit [www.whatcomcounty.us/dem](http://www.whatcomcounty.us/dem).*



### Contact Information

#### Before a Flood

Whatcom County Public Works, River and Flood Division: **(360) 676-6876**

Whatcom County Division of Emergency Management: **(360) 676-6681**

Whatcom County Planning and Development Services: **(360) 676-6907**

American Red Cross - Whatcom Chapter: **(360) 733-3290**

#### During a Flood

Incident Hotline: **(360) 738-4551**

Sandbag Requests: **(360) 676-6681**

#### After a Flood

American Red Cross: **(360) 738-4551**

Damage Report: **(360) 676-6681**

### Emergency Information

#### Radio

Emergency Alert System messages are broadcast on:

KGMI (AM 790)

KISM (FM 92.9)

KPUG (AM 1170)

#### Incident Hotline - (360) 738-4551

During incidents, call this number for up-to-date information.

#### Evacuation

If an evacuation is advised, you will be notified either by telephone, the Emergency Alert System, door-to-door contact, or public address systems.