

Are you ready for a flood?

- Flood insurance policy in a safe deposit box.
- Itemized list of personal property (furnishings, clothing, valuables), and photos of your house in a safe deposit box.
- Portable radio, emergency cooking equipment, and flashlights in working order.
- A plan for the safest route from your home to high ground should you have to evacuate in a hurry.
- Emergency food, water, and medical supplies. Food should require little cooking and no refrigeration.
- Check valves in your sewer traps, to prevent floodwater from backing up drains.
- Full tank of gas in your car.
- A supply of sandbags, plywood, plastic sheeting, and lumber which can be used to protect property.

For help contact:

Your local emergency management office

For more information

Federal

Federal Regional Center
130 228th St. SW
Bothell, WA 98021-9796
(425) 487-4610

State

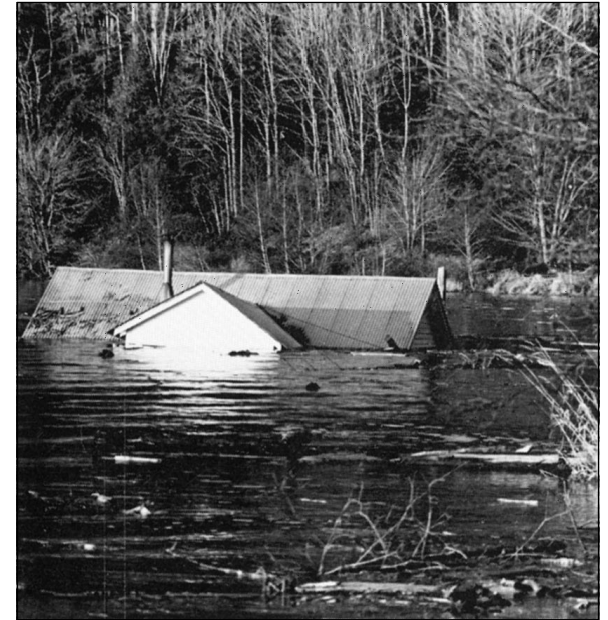
Emergency Management Division
WA Military Department
Building 20, MS: TA-20
Camp Murray, WA 98430-5122
www.wa.gov.wsem

Shorelands and Environmental Assistance

Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600
(360) 407-6000
www.ecy.wa.gov/programs/sea/floods

Published by the Washington Department of Ecology,
Shorelands and Environmental Assistance Program,
September 1991, revised July 2001. Photos by Tim D'Acci.
Prepared with funds from the
Federal Emergency Management Agency.

FLOOD HAZARDS



Be aware
Be prepared



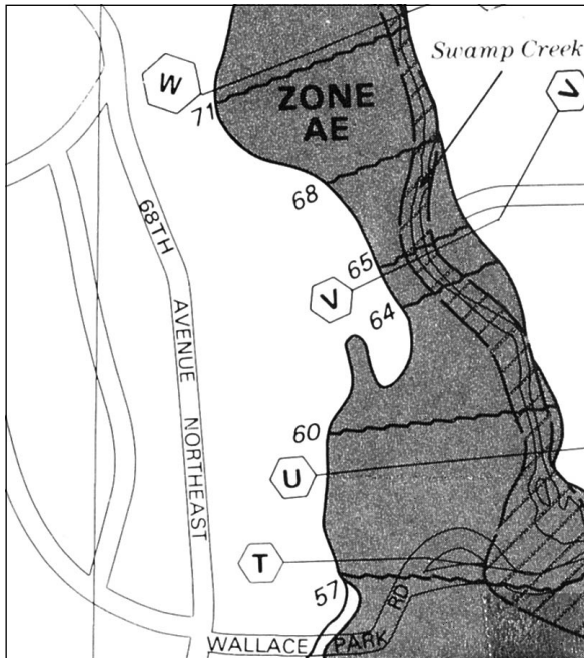
Publication #91-BR21

Do you live in a hazard area?

Floods normally occur in the low-lying areas adjacent to streams and rivers. When a river overflows its banks, these floodplains hold the water, storing it until it moves downstream or percolates through the soil. This natural event replenishes ground water, reduces the speed of flood waters, and revitalizes soils by depositing sediment.

When floodplains are developed, the natural process of flooding takes on a menacing aspect. Unfortunately, many of Washington's flat and fertile floodplains have been thickly settled. Every year, buildings are damaged in Washington's flood hazard areas.

Your community building or planning department has maps which show if your property is in a mapped floodplain. Find out if you live in a legally-defined hazard area.



Flood Insurance Rate Map; shaded areas are subject to flooding. Maps are available at city/county offices.

Reduce flood hazards

The most effective way to reduce the risk of damage in flood hazard areas is to regulate development. Inappropriate floodplain development forces rivers to cut a wider swath during flood stage. Paving reduces the absorption capacity of the soil, and buildings and other structures raise the level of flood waters by blocking the flow.

Regulation is accomplished through a permitting system. Before developing in the floodplain you must obtain a floodplain development permit from your local government. Most building, filling, grading, dredging, paving, mining, and other development activity requires a permit. This procedure gives community officials a chance to evaluate the increased risk from additional development in that particular flood hazard area. Flood proofing or elevating the structure may be required for permit approval.

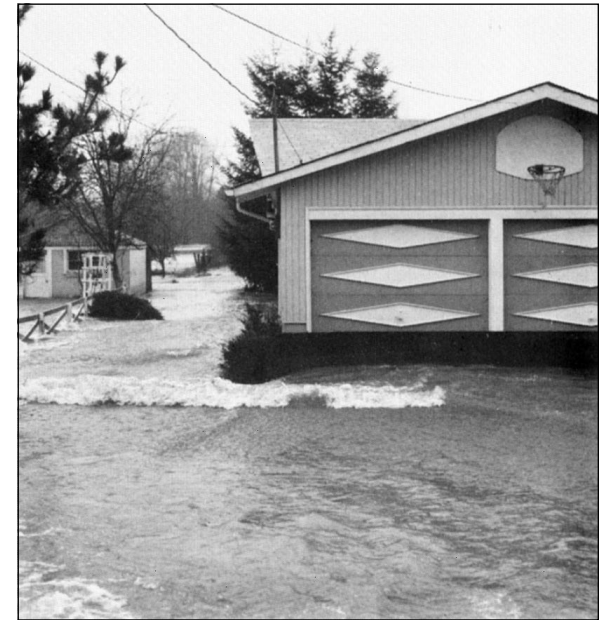
One way to reduce damage to your home or business is by flood proofing. There are many ways to flood proof a structure such as elevating, or adding small levees and floodwalls or flood shields for doors and windows. You may need to talk to an engineer about your options.

Get flood insurance

Your regular homeowner's policy does not likely cover losses due to floods. However, you can only buy flood insurance if your community is participating in the National Flood Insurance Program (NFIP). In order for a community to enroll, it must agree to regulate development in flood hazard areas.

Under the NFIP, you can insure your building and its contents from flood damage. See a local insurance agent for more details.

If your community is not enrolled in the NFIP, you cannot obtain federal or federally insured loans for construction or acquisition of buildings in a flood hazard area. These loans are available only to property owners with flood insurance. If you have questions about your community's enrollment, contact your local planning department.



Without flood insurance, even shallow flooding can be financially devastating.

Before a flood

- Buy flood insurance! Losses due to goods are not covered under your regular homeowner's policy. Contact your agent about eligibility for flood insurance, offered through the National Flood Insurance Program. There is a 5-day waiting period, so don't wait until the last minute to apply. Damages from a flood in progress are not covered.
- Make an itemized list of personal property, including furnishings, clothing, valuables. Take photos of the house, inside and out. This will help the adjuster in settling claims and will help prove uninsured losses, which are tax deductible.
- Keep your insurance policies and a list of personal property in a safe place, such as safe deposit box. Know the name and location of the agent(s) who issued these policies.
- Keep a portable radio, emergency cooking equipment, and flashlights in working order.
- If your community has a flood warning system, such as foghorn or radio station, learn about it and how it works.
- Learn the safest route from your home or place of business to high ground should you have to evacuate in a hurry. Practice it with your family.
- Have emergency food, water, and medical supplies on hand. Food should require little cooking and no refrigeration.
- Install check valves in sewer traps to prevent floodwater from backing up in sewer drains.
- Keep auto fueled; if electric power is cut off, filling stations may not be able to operate pumps for several days.
- Keep on hand materials such as sandbags, plywood, plastic sheeting, and lumber which can be used to protect properties. Never stack sandbags directly against outer walls of a dwelling! When wet, the bags create added pressure on the structure.



If you live in a flood hazard area, you should consider elevating your house. (Skagit County)

During a flood

- Flood waters can rise rapidly, so prepare to evacuate before water reaches your property.
- Keep a battery-powered radio tuned to a local station, and follow emergency instructions.
- Move to a safe area before access is cut off. If it is safe to evacuate by car, stock the car with nonperishable foods (like canned goods), a plastic container of water, blankets, first aid kit, flashlights, and dry clothing.
- Do not drive where water is over the road. Parts of the road may be washed out; you could be stranded or trapped.
- If your car stalls in a flooded area, abandon it if safe to do so and climb to higher ground. Floodwaters can engulf and sweep away a car and its occupants. Many have died trying to move stalled vehicles.
- If you're caught in the house by suddenly rising waters, move to the second floor and, if necessary, to the roof. Take warm clothing, a flashlight, and a portable radio with you. Don't try to swim to safety; rescue teams will be looking for you.

If time permits:

- Turn off all utilities at the main power switch and close the main gas valve if evacuating. Don't touch electrical equipment unless it is in a dry area.
- Fill bathtubs, sinks, and jugs with clean water in case regular supplies are contaminated.
- Board up windows or protect with storm shutters or tape to prevent flying glass.

After a flood

- Wait until officials assure you that flood danger is passed before re-entering flooded areas.
- Before entering the building, make sure it is not in danger of collapsing. Air out to remove gas.
- When entering, use flashlights, not lanterns or torches, because of the possibility of gas. Turn the main power switch off. Don't turn on lights or appliances until an electrician has checked your system.
- Begin clean-up as soon as possible. Open windows and doors to dry out the building. Shovel out mud while it is still moist. Throw out perishable foods. Scrub and disinfect walls, floors and household items. Clean, air out and dry clothing, rugs, and bedding.
- Pump a third of the water out of a flooded basement each day. Further structural damage can occur by pumping water out too quickly.
- Photograph damage and keep records of flood prevention and repair activities. The information will be useful in settling insurance



Don't let your dream home become a nightmare -- find out if the land you are interested in is flood prone, before you buy. (Chehalis River, 1990)

claims and in reporting losses to the IRS.

- Cover broken windows and holes in the roof or walls to prevent further weather damage. Temporary repairs are usually covered under your flood insurance policy (subject to the policy deductible), so save receipts.
- Disinfect water for drinking and food preparation until the public water system has been declared safe. To disinfect, boil vigorously for ten minutes, or mix

1/2 teaspoon of liquid commercial laundry bleach with 2.5 gallons of water and let stand for five minutes before using. To remove the flat taste pour the water from one container to another, or add a pinch of salt.

- Hose off refrigerators, and other hard goods and keep for the adjuster's inspection. To deodorize major kitchen appliances use one tsp of baking soda mixed with a quart of water. Dry and air partially damaged items; the adjuster will recommend repair or disposal.

- Take wooden furniture outdoors, but out of direct sunlight to prevent warping. Remove drawers and other moving parts. Don't pry open swollen drawers from the front; remove the backing and push the drawers out.

- Remove mildew from dry wood with a solution of 4 to 6 tablespoons Tri-sodium Phosphate, 1 cup liquid chlorine bleach, and 1 gallon water.

- Clean metal at once, then wipe with a kerosene-soaked cloth. A coat of oil will prevent iron from rusting.



Flood hazard areas are prone to mud slides and debris flow damage. (Whatcom County, 1983)