



# FLOOD SAFETY & AWARENESS

skagitcounty.net/DEM

## Floods don't just happen in the floodplain

Strange as it may seem, floods don't just happen in the floodplain. Low-lying areas can flood during or after heavy rains. Storm drains can get overwhelmed (or plugged with fallen leaves) and create mini-floods in neighborhoods that are typically high and dry.

Floods affect all of us. That's why we take time every year to recognize Flood Awareness Week. It's a time for you to think about your flood risk, take steps to minimize that risk, and update your emergency plans.

Prepping doesn't have to be complicated or expensive. For starters, this guide includes checklists, links, tips and other helpful flood prep information. Clip this info out and stick it to your fridge. Take a photo and save it to your phone. Tweet it. Pin it. Whatever works.

Minimize your prep kit expenses by taking inventory of your house. What do you have that could go in a kit? Thrift stores or dollar stores are another inexpensive way to get additional items for your kit. Whatever you do, just do something. Don't be scared. Be prepared.

## FLOOD INFO

### Skagit County Department of Emergency Management

☎ 360-416-1850  
🌐 [skagitcounty.net/DEM](http://skagitcounty.net/DEM)  
🐦 @SkagitDEM  
📘 Skagit DEM

### Skagit County Public Health Department

☎ 360-416-1500  
🌐 [skagitcounty.net/Health](http://skagitcounty.net/Health)

### Skagit County Public Works Department

☎ 360-416-1400  
🌐 [skagitcounty.net/PublicWorks](http://skagitcounty.net/PublicWorks)

### River Level Hot Line

☎ 360-416-1404  
🌐 [skagitcounty.net/Flood](http://skagitcounty.net/Flood)



## DIY prep kit: tips & tricks

### THINGS I ALREADY HAVE

- ❑ **Nonperishable food:** What can you set aside? Look for items like granola bars, cereal, peanut butter, canned fruits, veggies & meat. Check expiration dates and don't forget a manual can opener.
- ❑ **Water:** Gather commercially bottled water and store in a cool, dark place. OR buy food-grade water storage containers (NOTE: replace DIY stored water every six months). At least 1 gal per person per day.
- ❑ **First-aid kit:** DIY kits should include 25 adhesive bandages, antibiotic ointment, antiseptic wipes, aspirin/ibuprofen, cold compress, latex gloves, scissors, gauze, thermometer & prescription meds.
- ❑ **Hygiene items:** Set aside toothbrush/toothpaste, saline solution, glasses/contacts and feminine supplies for your kit.
- ❑ **Cash/travelers checks:** Have cash on hand for simple transactions after an emergency.
- ❑ **Extra clothes & shoes:** Have items you or the family don't wear much but that still fit? They're perfect for your emergency kit.
- ❑ **Cloth face masks and cleaning supplies:** During the pandemic or any communicable disease outbreak, it's important to have disease management supplies ready to go.

### PET THINGS I ALREADY HAVE

- ❑ **Extra food:** Free sample-size packs of food are perfect for your pet kit. Or: Store 3 days' worth in a clean airtight container.
- ❑ **Pet H<sub>2</sub>O:** Fido & Felix need their own water. Set aside at least a bottle or two for your pets, too.
- ❑ **Pet first aid:** Cotton bandages, tape, saline solution & isopropyl alcohol = DIY pet first-aid kit.
- ❑ **Pet toys:** Set aside familiar toys or treats to help reduce stress for your pet.

### SIMPLE THINGS I CAN BUY

- ❑ **The kit itself:** Whether it's a storage tub or a backpack, check thrift stores, dollar stores or sales for a sturdy container or bag you can store your prep materials in.
- ❑ **Bleach:** Household chlorine bleach can disinfect water.
- ❑ **Matches/lighter:** Store them in a waterproof container.
- ❑ **Extra phone chargers:** To help you stay in contact wherever you are.
- ❑ **Picnic supplies:** Mess kits, paper plates/cups, paper towels and disposable utensils can reduce water needs after an emergency.

**Remember:** These are suggestions, not a complete list. You know your family and your families needs best.

## ARE YOU AT RISK?

Do you live in a flood or channel migration zone?  
▶ <http://msc.fema.gov>

## GET LOCAL ALERTS

Sign up today for Skagit County's CodeRED emergency notifications  
▶ [www.skagit911.us](http://www.skagit911.us)

## GET INSURANCE

Standard insurance doesn't cover floods. Do you need it?  
▶ [www.floodsmart.gov](http://www.floodsmart.gov)

## DIY PREPKITS

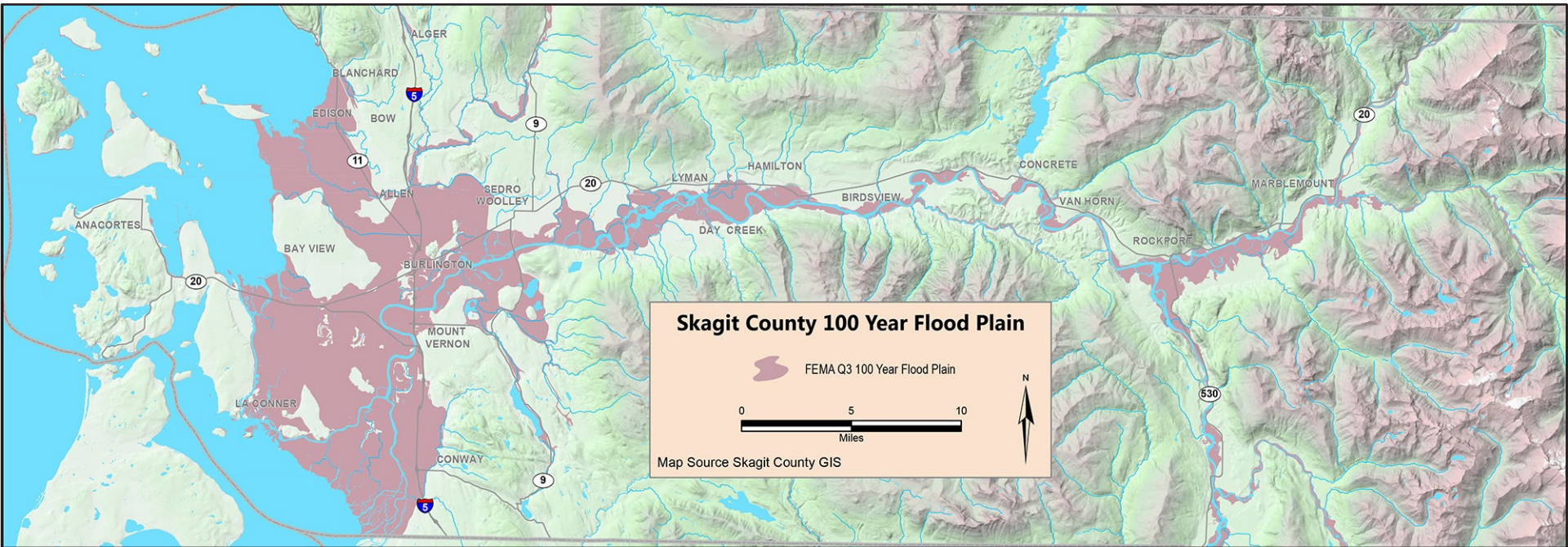
Complete checklists online:  
▶ [redcross.org/prepare](http://redcross.org/prepare)  
▶ [ready.gov/build-a-kit](http://ready.gov/build-a-kit)

## MAKE A PLAN

How will you get alerts, talk with family or evacuate?  
▶ [www.ready.gov/make-a-plan](http://www.ready.gov/make-a-plan)



# FLOODS: ARE YOU AT RISK?



## FLOODING IN THE SKAGIT RIVER

### 100-YEAR FLOOD

Refers to the 1 percent annual chance flood; or, a flood that has a 1 percent chance of being equaled or exceeded in any single year. It is NOT a literal term; multiple 100 year floods could occur each century. There is about a 26 percent chance that a hundred year flood will happen during a 30 year mortgage.

### PHASE 1 FLOODING

Phase 1 floods inundate low areas near the Skagit River, may cover sections of roads, and occur roughly every few years. They generally cause minimal damage in the Skagit River Valley. Phase 1 floods occurred in Mount Vernon in fall 2015.

### PHASE 2 FLOODING

Phase 2 floods inundate a wider area and may cause significant damage. A large Phase 2 flood occurred in December 1975; it was estimated to be a 10-year flood event (a flood that has 10 percent chance of occurring in any given year).

### PHASE 3 FLOODING

Phase 3 floods can cause catastrophic damage. The last Phase 3 flood occurred in November 2006, when the Skagit River reached a height of 39.79 feet on the flood gauge in Concrete, well above the Phase 3 criteria of 37 feet.

### FLOOD STAGE

Site-specific river level at which flooding may occur. Usually at or above the top of the riverbank. Flood heights are typically measured relative to flood stage elevations. Find a map of flood gauges and flood stages online: [skagitcounty.net/riverlevels](http://skagitcounty.net/riverlevels).

### FLOOD WATCH

A flood watch is issued when conditions are favorable for a specific hazardous weather event to occur, and when conditions are favorable for flooding. It does not mean flooding WILL occur, but it is possible.

### FLOOD ADVISORY

A flood advisory is issued when flooding is not expected to be bad enough to issue a warning. Flooding may occur, and may cause significant inconvenience. If caution is not exercised, flooding could lead to threats to life and/or property.

### FLOOD WARNING

A flood warning is issued when the hazardous weather event is imminent or already happening. Flooding may also be imminent or occurring. Rivers may rise quickly. Tune to your local emergency alert system to find out if you need to evacuate.



## SKAGIT RIVER: A MOVING HISTORY

**Where will the river move?** Rivers can and will change their course, and the Skagit is no exception. While properties within the 100-year flood plain are at risk of flooding, properties near historic river channels are also at risk of damage during flood season.

**Look at Skagit River history:** Skagit County's Lidar Story map and iMap layer show you the bare earth beneath the Skagit River. Historic river channels, oxbows, landslides and other features are clearly visible. Take a look: [skagitcounty.net/lidar](http://skagitcounty.net/lidar)







- ▶ The Skagit River has reached flood stage 60+ times in the past 100 years, including in 2017, 2018, 2019 and 2020.
- ▶ Floods can happen anytime, in any season. Heavy rain, snowmelt, coastal storms and other weather events can cause flooding – even in areas that haven’t previously flooded.
- ▶ More than 30,000 people live in Skagit County’s 100-year floodplain. If you live near low-lying areas, near a body of water, along a coast, or downstream of a levee or dam – you may be at risk of flooding.
- ▶ Remain alert before & during a flood. Whether via social media, websites, alert apps, TV or radio, local officials will share weather updates and emergency instructions (including evacuation orders) that could affect you.

### 3 *fast* FLOOD FACTS

- ▶ Heavy rain can bring dangerous flash flooding.
  - ▶ 6 inches of moving water can knock a person down.
  - ▶ 2 feet of moving water can sweep a vehicle away.



Whether you're walking or driving, stay clear of floodwater.  
Share these facts with friends so they're safe too.

FEMA

## ACTIONS TO TAKE...

- ... DURING A FLOOD WATCH
  - ☐ **Know local emergency plans.** Where will you go and how will you get there if you need to reach higher ground?
  - ☐ **Check and restock your kit.** Make sure you have at least 2 weeks of food & water for everyone in your home, as well as flashlights, batteries, cash, prescriptions & first-aid items.
  - ☐ **Sign up for alerts.** Timely local weather alerts and warnings can help you make smart decisions. Make sure you know the difference between watches and warnings.
  - ☐ **Follow Skagit County on Twitter at @SkagitGOV** for updates

- ... DURING A FLOOD ADVISORY
  - ☐ **Stay informed.** Turn on your TV or radio, or follow social media for the latest weather updates and emergency instructions.
  - ☐ **Know where to go.** You may need to reach high ground quickly and on foot. Make sure you know your primary and backup evacuation routes.
  - ☐ **Prepare your home.** Bring in outdoor furniture and move important items to elevated areas to protect them from floodwaters. Do NOT shelter in attics.
  - ☐ **Disconnect appliances.** Unplug electrical appliances, and if instructed, turn off your gas and electricity at the source. This helps prevent fires or explosions.

- ... DURING A FLOOD WARNING
  - ☐ **Take immediate action.** Evacuate if directed OR move immediately to higher ground or stay on high ground.
  - ☐ **Don’t walk or drive through floodwaters.** Even small amounts of moving water can sweep people and vehicles away. Low-lying roads or bridges can be swept away by floodwaters. If floodwaters rise around your car, but the water is not moving, abandon the car and move to high ground.
  - ☐ **Avoid bridges over floodwaters.** Fast-moving water can weaken bridge footings and make the structure unstable.

## PROTECT YOUR HEALTH

- ▶ **Handwashing & personal hygiene.**
  - .Consider all floodwaters contaminated. Avoid contact with mud and floodwaters whenever possible. Treat cuts and abrasions immediately; clean with nonpolluted water, then use antibacterial products.
- ▶ **Purify your water.**
  - Even clear water can be contaminated. Bring to a rolling boil for one minute OR chemically disinfect it. Strain dirty water through a filter before purifying.
  - Add 1/4 teaspoon of household 6% or 8.25% bleach per gallon of filtered water. Let stand for 60 minutes before use.
- ▶ **Food safety is paramount.**
  - If the power goes out, eat food that spoils rapidly first.
  - Keep your refrigerator/freezer closed to conserve cold air. Use ice, dry ice or snow to keep food cold.
  - Discard food that is not cold or shows obvious signs of spoilage.
  - More info: [www.cdc.gov/disasters/foodwater/facts.html](http://www.cdc.gov/disasters/foodwater/facts.html)

## PREP YOUR PROPERTY

- ▶ Skagit County is considered a Class 6 community under FEMA’s rating system. Every flood policy holder is entitled to a 20 percent reduction in premiums.
  - **Purchase or renew your policy today:** It typically takes 30 days for a policy to go into effect. Homeowner’s policies do NOT cover flooding. The National Flood Insurance Program can provide coverage.
- ▶ If you live in the floodplain, Skagit County Planning Department OR your city planning department can help you decide how to protect your property from flood damage. Options include:
  - **Elevating** buildings to prevent water from entering the structure.
  - **“Dry floodproofing”** for commercial buildings makes walls and floors watertight so water can’t enter the structure.
  - **“Wet floodproofing”** for shops and garages modifies the structure and relocates the contents so floodwaters do minimal to no damage.
  - **Stocking up** and keeping materials like sandbags, plywood, plastic sheeting and lumber on hand for emergency waterproofing.



# WHAT TO DO AFTER A FLOOD

After a flood, you need to make sure your home is safe to enter or occupy. If you live in unincorporated Skagit County, call Skagit County Planning and Development Services at 360-416-1320 to arrange a post-damage assessment. If you live in a city or town, contact your municipal government. FEMA and/or your insurance company may require an assessment. Inspectors will visit the site and:

- Inspect the interior and exterior of buildings, including foundations, framing, siding, heating systems, plumbing, flooring, drywall, insulation, etc.;
- Document observed damage & the percentage of each component affected;
- Determine the highest water level that was in the building;
- Classify building damage as minor, major or destroyed.
- Find Initial Damage Assessment forms online: [skagitcounty.net/dem](https://skagitcounty.net/dem)



## PROTECT YOUR HEALTH AFTER A FLOOD

► **Protect your water source:** Floodwaters can pollute wells with silt, contaminants or bacteria. What can you do?

- Once floodwaters recede below the wellhead, contact the Skagit County Health Department at 360-416-1500 for information about residential well or water testing.
- Large pieces of debris in floodwaters can expose wiring, dislodge part of your well or crack the well casing. Do not turn on your well pump until the well has been assessed and/or repaired.

► **Mold and indoor air quality.** Mold growth may be a risk if floodwaters entered your home. Here's how to reduce the risk:

- Remove as much standing water as possible from floors, carpets, etc. COMPLETELY remove wet materials that can't be dried within 48 hours.
- Flooded basements should be emptied by only one-third of the volume each day, beginning once surrounding floodwaters have receded.
- Dry the inside of the house. Open

windows, closets, doors, the attic, eaves and other vents.

- Warm the house at least 15 degrees higher than the outside temperature.
- Remove baseboards and drill/punch holes in the wall 2 inches above the floor to dry areas between walls.

► **Avoid Carbon Monoxide (CO2) poisoning during power outages.** Using alternative sources of fuel for heat, cooking or electricity can cause CO to build up in enclosed spaces. *It is odorless & poisonous to people and pets:*

- **Do not use BBQs, propane heaters, generators or gas ranges indoors.**
- **Have a battery-operated CO2 detector in your home.**
- **Symptoms of CO2 exposure include headache, dizziness, weakness, nausea/vomiting, chest pain and confusion.**
- Learn more: [www.doh.wa.gov/CommunityandEnvironment/Contaminants/CarbonMonoxide](http://www.doh.wa.gov/CommunityandEnvironment/Contaminants/CarbonMonoxide)

## COMING HOME

► If you evacuated your home, return **ONLY** when authorities say it is safe.

► Beware of areas where floodwaters have receded, and watch out for debris on or near the road. Road closed signs may still be in place even if roads do not appear flooded. Don't drive around barricades.

► Turn off power at the main breaker or fuse box. Before use, make sure electrical and gas systems are functioning properly.

► Be alert for dangerous debris like glass, needles or metal fragments. Before walking through flood debris, use a stick to check for hidden dangers. Be mindful of underground or downed power lines that could electrically charge standing water.

► Photograph damage to your property and contact your insurance agent. Do what you can to prevent further damage.

► The Red Cross may provide you with a voucher for essentials like groceries, medication and clothing. They can also provide you with a flood cleanup kit: mop, broom, bucket and cleaning supplies.



## FLOODING CAN ALSO BE CAUSED BY A TSUNAMI

What is a tsunami? A tsunami is a series of waves most commonly caused by an earthquake beneath the sea floor. They can occur at any time of the day or night. In deep water, tsunamis travel as fast as a commercial jet plane and are hardly noticed by ships. As a tsunami approaches the shore, it slows down and can grow to heights of sixty feet in some locations.

- ☛ The Washington Emergency Management Division operates three tsunami warning sirens in potential tsunami zones in Skagit County - two in Anacortes and one in Bow. The tsunami warning system is tested on the first Monday of each month at 12:00 p.m. During the monthly test, the sirens will sound for approximately 30 seconds. In the event of a real tsunami, the sirens will sound for three minutes.
- ☛ The sirens also sound during the Great Washington ShakeOut each year. This year, the Great ShakeOut is on October 15.



☛ Tsunami evacuation maps are available from the Washington Emergency Management Division. You can also review the tsunami evacuation maps online at [mil.wa.gov/tsunami](http://mil.wa.gov/tsunami). These maps are helpful in determining the quickest routes you should take to reach higher ground. It is a good idea to review and practice several evacuation routes to ensure you are prepared no matter where you are.