

Orting's Flood Hazards

Knowledge of our flood hazards can help you make informed decisions during disasters.

What is flood risk?

The term “flood” is sometimes confusing because it is used to describe a wide range of environmental conditions. In basic terms, a flood is when water either partially or totally covers land that is typically dry. This means that you are experiencing a flood when your storm drain overflows and fills the street during a storm. You’re also experiencing a flood when your house is underwater due to a dam breach.

Flood risk is a measure of how vulnerable you are to flood. You can think of it as the product of flood event probability and total amount of assets potentially exposed to the event. You’ve probably heard people talk about the probability in this equation in terms of 100-year floods or 500-year floods. These terms are sometimes misinterpreted. A lot of people think they mean that one flood happens every 100 or 500 years. So, if you were recently flooded, you wouldn’t experience another one for another 99 or 499 years. In reality, 100-year flood is a flood event that has a 1% chance of happening every year. Similarly, a 500-year flood is one that has a 0.2% chance of happening every year. These are statistical terms that describe likelihood, which means that, while unlikely, you could plausibly experience a 100-year flood two years in a row!

Local flood hazards

Events that cause flooding are called “flood hazards”. These hazards can be manmade (like a dam failure or levee breach) or they can be natural (like a storm) and are often locally unique. Here in Orting, we experience riverine flooding. Riverine flooding is also called fluvial flooding and it’s the most common flood event in the U.S. It happens when the amount of water in a river increases beyond the river’s capacity and overflows. This increase most typically happens after heavy rainfall but can also be due to a number of causes, including snow melt, dam failure, and levee failure. Sometimes, riverine flooding takes the form of flash flooding, meaning a large amount of water enters a waterway over a very short period of time. Flash

flooding is especially dangerous because it usually comes with very little warning and water during these vents can be very fast moving.

What is a flood zone?

Flood zones are defined by FEMA and delineated on Flood Insurance Rate Maps (FIRMs). High-risk flood zones are described as part of an area known as a Special Flood Hazard Area (SFHA). The SFHA is what must be regulated through floodplain management in order for our community to participate in the National Flood Insurance Program (NFIP). If that's confusing, think of it like this: the Special Flood Hazard Area (SFHA) is the area of concern for the National Flood Insurance Program (NFIP). Within the SFHA, there are different zones that correspond to different types of hazards. These are called flood zones. There are many different flood zones but the ones that are most common are:

X: Areas subject to flooding by the 0.2-percent annual chance flood event. These are considered to be lower risk than A, AE, V, and VE zones and are not included in the Special Flood Hazard Area (SFHA)

A: Areas subject to inundation by the 1-percent annual chance flood event that don't have Base Flood Elevations (BFEs) calculated. Sometimes A zones are called "Approximate A" zones.

AE: Areas subject to flooding by the 1 percent annual chance flood event that have Base Flood Elevations (BFEs) calculated (the E in AE stands for "elevation"!). Coastal AE zones also exist. These are areas of special flood hazards extending inland to the limit of the 1.5-foot breaking wave.

V: Areas along coasts subject to inundation by the 1-percent annual chance flood event with additional hazards associated with storm-induced waves.

VE: Areas along coasts subject to flooding by the 1-percent annual chance flood event with additional hazards associated with storm-induced waves. These are different from V zones in that (like AE zones) they have Base Flood Elevations (BFEs) calculated.

In the above list, the Base Flood Elevation (BFE) is referenced often. BFEs are important to floodplain management in that they are often regulatory thresholds for development and building permits. This means that some of the construction in Orting are required to be elevated to or above the BFE. If you have questions about this, feel free to contact us using the information listed in the next section.

How do I know if I'm in a flood zone?

These maps should help get you started:

- [Orting's Current Hazard Mitigation Plan \(2020 - 2025\)](#)
- [Orting's 2015 - 2020 Hazard Mitigation Plan](#)
- [Orting's 2017 FEMA Flood Hazard Map](#)
- [Orting's Flood Hazards Map](#)
- [Residential Conservation Zone with SMP Jurisdiction and Floodway Map](#)
- [Channel Migration Zone Map](#)
- [1985/1987 Flood Hazards Area Map](#)
- [Past Flood Effects Map](#)
- [Past Floods Map](#)

If you would like more information about your individual flood risk, and to learn more about your flood zone, you can reference FEMA's [Map Service Center](#). If you would like further assistance, we're here to help. You can reach us via an online form or by phone, both of which you can find under [Get Help](#).

Our Floodplain

Orting's floodplains play important roles in maintaining our costal and riverine ecosystems. How do they work?

What is a Floodplain?

Often we think of floodplains as a nuisance to development, since they can complicate our building processes. However, our floodplain is also an incredibly valuable resource for our community.

But what is a floodplain? Floodplains are areas adjacent to bodies of water that flood during periods where water levels rise (like during/after storms, during high tides, etc...). As a result, they are highly dynamic and constantly changing ecosystems that have a variety of social and ecological functions such as:

- Recreation. The wetlands and riparian areas that surround us are important community amenities. Birdwatchers, hikers, beach-goers alike regularly enjoy the recreational opportunities that our floodplain provides.
- Agriculture and fishing. Because floodplains are highly dynamic, they play a crucial factor in replenishing nutrients in our soils. In many parts of the country, the fertile soils found in floodplains create ideal conditions for farming. Coastal floodplains play an important role in maintaining the health of our fisheries.
- Wildlife Habitat. Waterfowl, fish, and other coastal/riverine critters populate our floodplains, where they breed, feed, and interact.
- Water Quality Maintenance and Groundwater Recharge. Floodplains act as a filtration system for water entering into our watersheds. They also have the capacity to store water when there's too much of it and distribute it to our aquifers.
- Warning. Because floodplains are sensitive indicators of change. They are immensely valuable in alerting us to changes in our natural environment.

Protecting our floodplain

While floodplains are immensely important, they're also delicate. They work as part of larger systems that are inclusive of surface water and watersheds across large areas. If a single part of this system is disrupted, it can have wide-ranging implications for other areas. As residents of Orting, it is our responsibility to develop responsibly and treat our floodplains and stormwater drainage systems with care. You can do your part in protecting our natural floodplains by keeping in mind the following:

- Don't dump waste in or near waterways or storm drains. This includes inorganic waste, like cigarette butts, but also landscaping debris. Even grass clippings and branches can accumulate and plug drainage channels.
- Landscape appropriately. If you're located near a waterway, consider using alternatives to pesticides and fertilizers.
- Let us know if you witness any illegal activities. It's difficult to monitor our entire floodplain all the time. If you see the dumping of debris in ditches, streams, the bay or ocean, [contact us](#) as soon as possible.
- Develop responsibly. Our ordinances and regulations serve as protection mechanisms for our natural floodplains. By following our permitting process and abiding by our codes, you're developing responsibly!

Resources

The City of Orting engages in planning around open space preservation and shoreline protection.

- [City of Orting Shoreline Master Program](#)
- [Open Space Preservation Area Map](#)

Flood Insurance 101

Flood insurance is a crucial part of managing risk in our community. But how does it apply to you?

What is flood insurance?

Property insurance policies like homeowners insurance don't usually cover damage resulting from flooding. Flood insurance fills this gap. In the U.S., most available flood insurance policies are provided through the National Flood Insurance Program, or NFIP. The NFIP was created in 1968 as part of a movement to integrate non-structural methods of managing flood risk into U.S. floodplain management systems. Without getting too specific, the NFIP is meant to provide residents like yourself with alternative financial tools to traditional disaster relief funds after flooding events.

NFIP flood insurance policies are unique in the world of insurance in that the federal government sets the rates and backs them. While this is true, you can purchase your flood insurance through private insurance agents, who will also be your points of contact for filing claims.

What does flood insurance cover?

There are two main flood insurance coverage types. While policies can get pretty nuanced, here are the main differences:

Building Property: This type of policy covers your physical home from the roof down to the foundations. It also includes anything integrally attached to your house (like cabinets). A useful rule of thumb can be: building property flood insurance covers anything that you wouldn't take with you during a move. Most detached structures are not included in a building property policy (you'll need a separate policy for them), but detached garages can be. There are two types of reimbursements possibly under these policies:

- **Replacement cost value (RCV):** As the name suggests, RCV allows you to be reimbursed for the cost of replacing your lost property, without depreciation factored in.
- **Actual cash value (ACV):** An ACV reimbursement is typically less preferable for property owners as it reimburses you for the depreciated value of your property at the time of your loss.

Let's take the abstract example of a five year old couch. RCV will give you the amount of money you need to buy a new couch. ACV will factor in the five years and give you the amount of money that your couch was worth when you lost it, which means that to buy a new one you'll need to make up the difference.

Building property coverage typically covers RCV for primary dwellings, so if you use the property as your primary place of residence you'll be covered for replacement costs. For vacation homes, ACV is typically used when determining your reimbursement. Building property coverage usually doesn't cover mold/mildew damage or outdoor property damage (for example, your pool).

Personal Contents: This type of coverage protects the removable stuff inside of your home including furniture, appliances and clothing. It doesn't cover money, paper valuables, and/or precious metals nor does it cover cars (that's what your auto insurance is for). Personal contents coverage will give you actual cash value (ACV) for your goods.

Generally, residential NFIP policies have a maximum coverage of \$250,000 for buildings and \$100,000 for personal property. Private insurance is also an option if you want more coverage or terms that are different from those that the NFIP offers.

How is flood insurance priced?

If you have an NFIP flood insurance policy, your premium is set by FEMA. In this case, you won't get a different price if you shop around to different insurance companies (which can be great or

annoying, depending on your circumstances). Generally, your rate is set by combining details about a building (like when it was built, how many floors it has, and the elevation of the lowest floor) with its flood risk and coverage amount. For residents who are currently purchasing flood insurance or who think their premium might be too high, obtaining an Elevation Certificate might help to reduce costs. Check [here](#) to see if we have one on record for your property, already. If not, you can contact a surveyor to produce one.

The residents of Orting also get an automatic discount on flood insurance because our community participates in the Community Rating System. Because we invest in mitigation, we are a Class 6 CRS Community, which means that residents in the Special Flood Hazard Area (SFHA) get a 20% discount on flood insurance!

How do I know if I need flood insurance?

Anyone in an NFIP community (we are one!) can purchase flood insurance, regardless of risk level or mandatory purchase requirements. If your residence is in Orting and you want, you can buy it even if you're not required to.

You've probably heard about flood insurance requirements being included with home loans. Depending on the location of a building, flood insurance may be required as a condition for securing a federally-backed loan through your bank as well as grants offered by federal programs. While the idea of flood insurance is relatively straightforward, understanding how and when it is required is a bit more complex.

Here in Orting, you must purchase flood insurance in order to receive a federally-backed home loan or federal financial assistance for a property in our Special Flood Hazard Area (SFHA). Learn more about what a SFHA is and how to determine if a property you want to purchase is in one in [Orting's Flood Hazards](#).

Note that building property flood insurance is required. It's often misunderstood that mandatory flood insurance purchased as a condition for a loan includes contents coverage. In fact, while building property flood insurance is sometimes required, contents insurance is voluntary. If you want to insure your contents against flood, you'll have to purchase this in addition.

How do I buy flood insurance?

A local flood insurance agent can help you purchase a policy. You can start with the agent who sold you your homeowners or renters insurance. If they have a flood product, you can purchase it from them. If not, ask them for a referral. FEMA also keeps a list of companies that write flood insurance. You can find it [here](#).

If you purchase an NFIP flood insurance policy outside of a home purchase, there will be a 30 day waiting period before your insurance policy takes effect. You should factor this into your decision-making around when to purchase flood insurance.

Build Responsibly

Make informed choices when you renovate or build a new home.

Flooding and construction

Living in a floodplain carries with it risk that we can, to some extent, prepare for. If you're rebuilding, repairing, adding to your home or if you're constructing a new building, consider your property's flood risk as part of the construction process. Utilizing resilient construction techniques will save you money in the long run and help to keep your household safe.

Applicable ordinances

Here in Orting we have several regulations and processes in place to reduce flood risk for present and future construction projects. They include:

- [City of Orting, Washington Ord. 2017-1006](#)
- [City of Orting, Washington Ord. 2017-1009](#)

- [City of Orting, Washington Ord. 2017-1010](#)

Flood Safety

What can you do to make sure your family and neighbors are safe during flood events?

Be Prepared

Flood events might only happen once or twice per year but disaster readiness should be something that you think about year-round. Flooding can occur rapidly -- storing key documents and resources on-hand will ensure that you'll have the best possible chance at keeping your household safe and recovering quickly.

Well before a flood

Well before a flooding event happens, you should:

1. Determine reliable news sources and review your community's emergency warning system. Are there television and radio stations that you can tune into for real-time updates on evolving conditions? Keep in mind that news sources may or may not be accessible during large-scale disasters. What emergency warning systems does your community have in place? These can be sirens, text alerts, etc... Knowing where information will come from in emergencies will save you time and make sure you know what's going on.
2. Obtain information about your evacuation routes and shelter options. You may have to evacuate your home at night in dangerous conditions. Knowing where you're supposed to go and how to get there ahead of time can keep you safe. You can view Orting's Evacuation Routes [here](#) and learn more about emergency preparedness, in general, [here](#).

3. Write a communication plan. During emergency events you may or may not have access to the internet and phones. It's important that you and your family members memorize key phone numbers, have a plan for contacting each other, and know where to meet if you can't reach each other. It's advisable to designate an out-of-town contact person that can help coordinate loved ones who have spotty access to communication.
4. Create a go-kit. If you have to leave your home during a flood emergency, it will likely be in a rush and possibly in a low-visibility situation. Create a backpack kit a head of time with key documents and survival tools in order to lessen the stress of evacuation. To get you started, [Ready.gov](https://www.ready.gov) has some tips for creating a comprehensive disaster kit.

During a flood event

If a flood event occurs and you need to leave your home, there are a few key tips that you should remember:

1. Grab your go-kit and documents. If you've prepared a go-kit ahead of time, remember to take it with you. If you haven't, make sure to gather important documents (like passports, birth certificates, home deeds, etc...), important medications, and any supplies you think you might need in the near future.
2. Secure your property. When evacuating, it's often difficult to determine how long you'll be gone. Before leaving your home, remember to make sure that your property is secured. If you think your house might get flooded, elevate valuables and delicate items. Shut off your utilities before you leave so that your home is not at risk for a gas leak or fire.
3. Take your pets. Given that situations can evolve quickly, your pets could be at great risk if you leave them in your home when you evacuate. If you can, take them with you to ensure that they stay safe.
4. Avoid flooded areas. If you can, avoid driving or walking through flooded areas. Visual assessments of depths and current speeds are often deceptive -- the water might be deeper or be moving faster than you expected. Also, very small amounts of water can still destabilize you (it only takes 6" of water to knock a person over, and 2' of water to move a car!).
5. Monitor the situation. After evacuating, monitor the situation from a safe distance. For Orting, you can receive regularly updated news through our emergency broadcast networks.

After a flood event

1. Stay away from flood waters. Flood water comes into contact with roads, drains, septic systems, and other surfaces. As a result, it can contain hazardous materials that might be harmful to your health.
2. Make sure that areas are secure before returning if you evacuated. Sometimes residents make the mistake of returning to their homes too soon, when they're still at risk for injury or loss. It's a difficult judgement call to make, because you're probably eager to assess damage and return to your life, but take a moment to assess security before going back.
3. Identify financial options for rebuilding. If your property is damaged and you want to rebuild or repair it, there may be rebuilding/relief funds available to you.

Resources

To learn more about what the City of Orting is doing to keep residents safe, please feel free to [contact us](#) or reference our [Hazard Mitigation Plan](#).

Protect Your Property

Things you should know about protecting your home from flooding.

Flood Protection

Flooding can happen unexpectedly and cause long-lasting damage quickly. Luckily, there are a multitude of measures you can take to mitigate your home. They vary in complexity and cost. The good news is that many of your options are relatively low cost and efficient, especially when you compare the cost of the mitigation measure to the cost of recovery and repair. Below are a few suggestions to get you started.

Flood Protection Suggestions

1. Get flood insurance. Flood insurance isn't usually the first thing homeowners think about when they consider mitigation. Even so, it's an important financial tool that you can use to protect your home.
2. Regularly clean out your gutters. Gutters, downspouts, and drains often get clogged with debris. When this happens, water can pool along your foundations and exacerbate flooding conditions. Gutter maintenance is relatively low-cost and can save you a lot of money in the long-run.
3. Elevate your home. Elevating your home is one of the most effective flood mitigation actions you can take. Depending on your situation, it can be a costly undertaking. However, it will likely have a large impact on both your flood risk and your associated flood insurance costs.
4. Seal low-level brick or concrete walls. Sealing low-level brick or concrete can help to keep water out of your home during less intense flood events. Like cleaning your gutters, it's relatively affordable.
5. Install flood vents. Flood vents are openings installed on the lowest levels of your home. They allow water to pass through spaces like garages or basements so that, in flood events, water pressure does not build up and threaten the structural integrity of your walls. Flood vents are sometimes required for new construction, depending on whether or not your property has an enclosure that is below the Base Flood Elevation (BFE). Even if you aren't required to, you should consider installing them.

Flood Gauge Information

[What are Orting's current water conditions?](#)

Orting flood gauge

Flood gauges are placed all over the country to monitor the condition of our floodways. They collect a wide range of data including information on water levels, discharge rates (basically, flow rates), and water quality.

As a resident, you can access the real-time data for our closest gauge station. In addition to current water conditions, you can learn about historic flood events and meteorological observations. If you have questions about how to read flood gauge data, you can always reach us through [this form](#)!

Our local flood gauges

[Carbon River Near Fairfax USGS Gauge](#)

[Puyallup River Near Orting Washington USGS Gauge](#)