

Flood Protection

Roanoke County Newsletter for Property Owners

October 2025

YOUR Home IS in a Floodplain
So, What Should You Do?

Your Property IS in or Near a Floodplain or Special Flood Hazard Area (SFHA)

This flood protection newsletter is annually sent to residents who own or lease structures that are in or near areas subject to flooding. There are several options to determine if a property is in a floodplain or a SFHA:

- Visit <https://gisweb.roanokecountyva.gov/floodview/>.
- Call Roanoke County's Department of Development Services at (540) 772-2033.
- Call the Federal Emergency Management Agency (FEMA) at 1-877-FEMA MAP (1-877-336-2627).

FEMA defines SFHAs as land areas that are at high risk for flooding. These areas are indicated on Flood Insurance Rate Maps (FIRMs) and on Digital Flood Insurance Rate Maps (DFIRMs).



It pays to be prepared, as flooding may occur at any time, with little or no warning.

Know Your Flood Hazard

Flooding may occur at any time, with little or no warning. There are four main sources of local flood hazards: (1) floodplains; (2) rivers and streams during heavy storms; (3) inadequate overland relief during heavy storms; and (4) flash flooding caused by hurricanes and tropical storms. **Properties in a floodplain or in a SFHA may flood at any time.** Areas of flood hazards are identified on the 2007 DFIRMs. Visit <https://gisweb.roanokecountyva.gov/floodview/>.

In general, the SFHAs are labeled as Zone A or Zone AE. **Zone A** is the area subject to inundation by the “one-percent annual chance” flood (also known as the base flood) event determined by approximate methodologies.

DID YOU KNOW?

- Special Flood Hazard Areas (SFHAs) are high risk areas that have a 1% chance of being inundated by a base flood in any given year, as identified on the National Flood Insurance Program (NFIP) maps.

Zone AE is the area subject to inundation by the “one-percent annual chance” flood event determined by detailed methodologies. Base Flood Elevations (BFEs) are shown on the FIRMs.

- * For more information about Zones A and AE, visit www.fema.gov/flood-zones.
- * For FEMA's Flood Map Service Center, visit <https://msc.fema.gov>.

Your Property IS in or near a Floodplain!

- For more information, stop by or call us:
Roanoke County - Development Services
5204 Bernard Drive
Roanoke, VA 24018
(540) 772-2033

Protect Yourself from Flood Hazards

Flooding occurs in virtually every community, including Roanoke County. Flash floods are considered the most dangerous and may occur within a few minutes of excessive rainfall, following a dam failure, or from a sudden release of water held by a “debris jam.” Flash floods often have a dangerous flow of water that may carry rocks, mud, tree limbs, and other debris, all of which pose a hazard to humans or property caught in the flow path.

Overland flooding occurs when rivers and streams overflow their banks. Occasionally, the capacity of storm drain pipes designed to carry stormwater away from streets and yards is exceeded, which then results in street and overland flooding.

For more information about flooding, visit Roanoke County's website at: <https://roanokecountyva.gov/329/Flooding-in-Roanoke-County>.



Turn Around, Don't Drown

In 2024, 145 people drowned in flash floods/river floods in the United States. 86 (59.3%) were male, and 53 (36.6%) were female; for the remaining 6 people, gender was not reported (4.1%). According to the National Weather Service (NWS)¹, of the 145 fatalities, 1 person was boating, 1 was camping, 23 were in the water, 4 were in a mobile/trailer home, 47 were involved with ‘other’ activities, 35 were in a permanent home, and 34 were in vehicles/towed trailers.

As of this writing, drowning statistics are not yet available for 2025. To learn more about these and other related weather statistics, visit the NWS website at: [Weather Related Fatality and Injury Statistics](https://www.weather.gov/media/hazstat/sum24.pdf).

Flash flooding is **the most dangerous** type of flooding, as it combines the destructive power of water with its incredible speed and unpredictability.

Twenty three percent of those who died in 2024 floods made one common and fatal mistake: they drove their vehicles (including pickup trucks, vans, and sport utility vehicles) into flood waters.

According to the U.S. Geological Survey, water that is one foot deep typically exerts 500 pounds of lateral force on a vehicle. Once the vehicle is floating, the floodwater becomes the steering wheel. If the water is moving, the vehicle may be swept away, tipped on its side, or flipped over, trapping the occupants inside. Also, it is very important to remember that a bridge or road that cannot be seen under floodwaters may have been undermined or washed out. So, when you see flood waters, turn around, don't drown!” Please watch the following video:

<https://www.youtube.com/watch?v=Ik4MUI222pU>.

¹National Weather Service. <https://www.weather.gov/media/hazstat/sum24.pdf>

Flood Insurance & the Community Rating System

Roanoke County participates in FEMA's National Flood Insurance Program (NFIP) Community Rating System (CRS). This is a "voluntary incentive program that recognizes and encourages community floodplain management practices that exceed the minimum requirements of the [National Flood Insurance Program \(NFIP\)](#). Over 1,500 communities participate nationwide. In CRS communities, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community's efforts that address the three goals of the program: (1) Reduce and avoid flood damage to insurable property; (2) Strengthen and support the insurance aspects of the National Flood Insurance Program; and (3) Foster comprehensive floodplain management."¹

Participation in the CRS is a service for County residents and provides an opportunity for property owners to purchase flood insurance at discounted rates. Residents in Roanoke County may qualify for a Preferred Risk Policy (PRP), which offers multiple coverage combinations for buildings and contents, or contents-only coverage for renters who are located in moderate to low risk areas. PRPs are available for both residential and commercial buildings located in these areas that meet eligibility requirements based on the flood loss history of the building.

Roanoke County has participated in the program since October 1991 and maintains a Class 8 CRS Rating,

which offers a CRS discount of 10% for all NFIP policies in the County, including policies outside of the Special Flood Hazard Area (SFHA).

Flooding is the most common natural disaster in Virginia, and it may occur at any time of year. Repairs are quite expensive. One inch of water in a home or office may cause significant damage. Unfortunately, most homeowners' insurance policies do not cover losses from flooding. Property owners/residents should contact their insurance agent to determine the extent of their policy coverage. And remember, after applying for coverage, there is typically a 30-day waiting period before coverage begins.

Renters may buy flood insurance for their personal belongings or business inventory. Coverage may include cleanup expenses and repair or replacement of such items as furnaces, water heaters, washers, dryers, air conditioners and freezers. To learn more about the value of flood insurance, watch the video found here: <https://www.youtube.com/watch?v=tMaX4GGDFm0>.

Flood insurance benefits do not have to be repaid. Flood-related claims may be covered even if a disaster was not declared. Flood insurance may cover homes and businesses and protect the property owner's financial security. For more information, see FEMA's Community Rating System website <https://www.fema.gov/flood-insurance>.

The National Flood Insurance Program¹

The National Flood Insurance Program (NFIP) is managed by FEMA and is delivered to the public by a network of more than 47 insurance companies and the [NFIP Direct](#), the latter of which facilitates the issuance and administration of NFIP insurance policies on behalf of the Federal Emergency Management Agency (FEMA), part of the Department of Homeland Security.

Floods can happen anywhere - just one inch of floodwater can cause thousands of dollars' worth of damage. Most homeowner insurance policies do not cover damage caused by flooding. Only a flood insurance policy will help you recover after a flood. It is a separate policy that can cover buildings, the contents in a building, or both, so it is important to protect your most important assets - your home, your business, your possessions. Policy rates are unique to your location and needs and they do not vary by insurance provider.

The NFIP provides flood insurance to property owners, renters and businesses to help them recover when floodwaters recede. The NFIP works with communities required to adopt and enforce floodplain management regulations that help mitigate flooding effects.

How to Purchase Flood Insurance - click here to [Get a Quote Now](#) or visit <https://www.floodsmart.gov/policy-quote/>.

¹FEMA.gov. National Flood Insurance Program. <https://www.fema.gov/flood-insurance>

FEMA's Risk Rating 2.0¹

As of April 1, 2023, FEMA has fully implemented the [National Flood Insurance Program's](#) (NFIP) pricing approach, Risk Rating 2.0. The approach leverages industry best practices and cutting-edge technology to enable FEMA to deliver rates that are actuarially sound, easier to understand and better reflect a property's flood risk. NFIP policyholders can contact their insurance company or insurance agent to learn more about what NFIP's pricing approach means to them. For more information, visit FEMA's website: <https://www.fema.gov/flood-insurance/risk-rating>.

Preparing Children for Emergencies

Emergencies and disasters can happen at any time. Disaster planning, response, and recovery efforts should always consider the unique needs of children, who make up roughly a quarter of the U.S. population. That is why Roanoke County Emergency Management and Development Services are taking steps to promote youth emergency preparedness.

INVOLVE CHILDREN IN DISASTER PREPAREDNESS:

- Promote interactive activities with your family. One way to do this is to involve children in the development of a family emergency plan.
- Use real world events to teach about emergency situations and disasters. Using current media coverage of floods, tornadoes, hurricanes, or power outages, talk to your children about how your family would respond if one of these events were to happen to you. Using your family emergency plan, discuss where you would go, what would you do, and how you would ensure their safety during an emergency.
- Children who are prepared experience less anxiety and feel more confident during actual emergencies and disasters.
- For younger children, the Federal Emergency Management Agency (FEMA) has collaborated with the American Red Cross to produce a disaster preparedness activity book, "Prepare with Pedro." Please visit <https://www.redcross.org/get-help/how-to-prepare-for-emergencies/teaching-kids-about-emergency-preparedness/prepare-with-pedro.html>.
- For more information about emergency preparedness, please visit <https://www.ready.gov/>.

Know Your Risk

Become familiar with your risk of floods and flood-related hazards before they occur.

You can maximize your flood preparedness and recovery by reviewing information in advance. Everyone has specific actions and steps they can take to understand their flood risk, depending on the role they have in the community.

FIND YOUR FLOOD MAP

Visit the [FEMA Flood Map Service Center \(MSC\)](#) to find your home or community's flood map. "The FEMA Flood Map Service Center (MSC) is the official public source for flood hazard information produced in support of the National Flood Insurance Program (NFIP). Use the MSC to find your official flood map, access a range of other flood hazard products, and take advantage of tools for better understanding flood risk."²

For additional information, please see the [Flood Hazard Mapping Updates Overview Fact Sheet](#).

¹FEMA. NFIP's Pricing Approach. <https://www.fema.gov/flood-insurance/risk-rating>

²FEMA. <https://www.fema.gov/flood-maps/know-your-risk>

DID YOU KNOW?

- Floods are the #1 natural disaster in the United States
- Real-time flooding updates: www.usgs.gov
- Other useful websites: [Rate Explanation Guide \(fema.gov\)](#)
www.weather.gov
Floods | Ready.gov

Turn Around

Don't Drown

- Stay out of flood waters.
- Keep children away from flood waters.
- Do not drive into flooded roadways.
- Do not drive around barricades.



Preparing for a Flood

As a property owner, getting ready for a flood is the best thing that you can do to minimize flood damage and losses to your buildings and personal property. FEMA¹ suggests that you follow these steps to protect yourself and your belongings:

PERSONAL PROTECTION

EVACUATE

To avoid being trapped when flood waters threaten your area, the best action to protect yourself and your family is to evacuate before flooding starts. Know and follow the directions from local officials for community evacuation or seek high ground for localized flooding. If you do not evacuate before the flooding occurs or you are trapped by flash flooding, do not enter flooded areas or moving water either on foot or in a vehicle, including areas that appear to have only inches of water. Visit <https://www.ready.gov/floods>.

PROPERTY PROTECTION

ELEVATE, WATERPROOF, AND CLEAR DEBRIS

Your goal now, before a flood occurs, is to reduce the risk of damage to structures from flooding. This means re-grading your lot to direct water away from structures, elevating critical utilities, such as electrical panels, switches, sockets, wiring, appliances, and heating systems, and waterproofing basements. In areas with repetitive flooding, consider elevating the entire structure above flood levels. Make sure that basements are waterproofed and that your sump pump is working, and then install a battery-operated backup in case of a power failure. Installing a water alarm will also let you know if water is accumulating in your basement. Clear trash and debris from gutters, downspouts, and storm drains. Anchor any fuel tanks. Move furniture, valuables, and important documents to a safe place. For more information about protecting buildings, review FEMA's publication entitled [Homeowner's Guide to Retrofitting: Six Ways to Protect Your Home From Flooding](#).

RISK MANAGEMENT

OBTAIN FLOOD INSURANCE

Purchasing flood insurance provides financial protection for the cost of repairs due to flood damage. Standard insurance policies do not cover flooding, but flood insurance is available for homeowners, renters, and business owners through the National Flood Insurance Program (NFIP). Visit [Flood Insurance | FEMA.gov](#) for an estimate of what flood insurance may cost for your property address. **A policy purchased today will take effect in 30 days, so act now.**

REDUCING FLOOD INSURANCE COSTS

BE PROACTIVE TO REDUCE YOUR PREMIUM

FEMA identifies 5 major ways to lower the cost of flood insurance, including: (1) relocating your home out of the base flood elevation; (2) elevating your utility services and equipment above the base flood elevation; (3) installing proper flood openings in your building; (4) filling in existing basements that are in the floodplain; and (5) elevating your house and accessory buildings above the base flood elevation. FEMA began offering more equitable and risk informed rates in October 2021. The new methodology considers the cost to rebuild along with several other flood variables to determine a property's true flood risk. Learn more here: <https://agents.floodsmart.gov/topics/writing-policies/reducing-insurance-costs>.

¹ FEMA | National Flood Insurance Program. <https://www.floodsmart.gov/prepare/minimize-damage>

Flood Safety

FLOOD SAFETY TIPS

1. **Be aware of flood warnings.** When there is a threat of flooding, listen to local radio/TV stations for advice.
2. **Stay away from flood waters.** If you come upon a flowing stream where water is above your ankles, stop, turn around, and go another way. Six inches of swiftly moving water can sweep you off of your feet.
3. **Keep children away from flood waters.** Flood waters are not only dangerous but also may be contaminated with hazardous materials and venomous snakes.
4. **Do not drive into flooded roadways or around barricades.** If you are caught on a flooded road and waters are rising rapidly around you, quickly get out of the car and move to higher ground. Most cars can be swept away by less than one foot of moving water.
5. **Stay away from power lines.** If power lines are down, do not step in puddles or standing water. **Report downed wires to Appalachian Power at 1-800-956-4237.**
6. **Turn off all utilities.** Turn off gas and electricity service, unplug electric appliances, and be alert for gas leaks.
7. **Be cautious upon returning to your home.** Be alert for possible gas leaks, debris that may have been washed into your house, and wild animals that may have sought shelter during the flood.
8. **Clean everything that got wet.** During cleanup, wear protective clothing, including rubber gloves and boots, to protect yourself from sewage and chemical contaminations. If an item cannot be cleaned, throw it away.

Floodplain Management Regulations & Permit Requirements

Activities in the floodplain are regulated through the County's Zoning Ordinance 30-74 Floodplain Overlay. The County's Floodplain Manager oversees the administration and enforcement of these regulations.

Construction in a floodplain must comply with the requirements and have a permit. Before building, filling, or excavating in a floodplain or near any natural or man-made watercourse, call the County at (540) 772-2033 to find out if the proposed activity is allowed and what types of permits are required. Please be aware of the following:

- Any construction or land disturbance within or adjacent to a natural or man-made watercourse may require a wetlands permit from the U.S. Army Corps of Engineers (USACOE) and/or the Virginia Department of Environmental Quality (DEQ).
- An addition to an existing building that is located in a floodplain may be allowed if the building is located outside of the floodway. The new addition must be elevated two feet above the Base Flood Elevation (BFE).
- New dwellings constructed in a floodplain must be elevated so the finished floor elevation is two feet above the BFE (100-year flood).
- Existing buildings in floodplains that have been damaged by flood, fire, or other casualty loss may be reconstructed. However, a dwelling damaged to the extent that the cost of repairs equals or exceeds 50% of the building's market value before it was damaged must meet the same requirements as a new building.
- For more information, call Development Services at (540) 772-2033 or email Nickie Mills at nmills@roanokecountyva.gov.

Floods are the #1 natural disaster in the U.S.

- Real-time flooding updates: <https://www.usgs.gov/>
- Other useful websites: <https://www.fema.gov/>
<https://www.weather.gov/>
<http://www.floods.gov/>

After disaster strikes, register with the Red Cross
<http://safeandwell.org/>

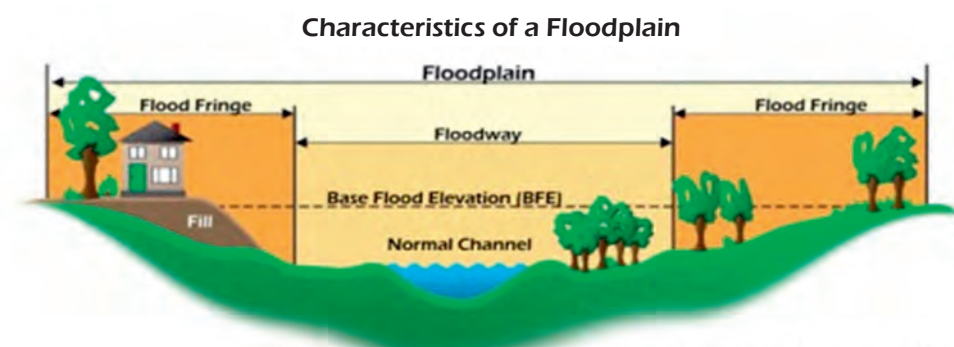
DID YOU KNOW?

- The County is required to administer and enforce Floodplain Regulations.
- New dwellings constructed in a floodplain must be elevated 2 feet above the Base Flood Elevation (BFE), i.e. the 100-year flood.

Floodplains and Flooding

Excessive rainfall often results in flooding. Such flooding can be categorized into three major types: (1) stream flooding, (2) storm drain system flooding, and (3) flooding related to site issues. Each of these are discussed in more detail below:

- **Stream Flooding** - Flooding within mapped floodplains or along small streams where floodplains are not mapped. Flooding happens when the rain occurs in large enough amounts (and short duration) to cause the waterbody (stream, creek, or river) to swell such that the water overflows its banks. The majority of flood damage occurs along streams. Areas with high risk of flooding are identified on the Federal Emergency Management Agency's (FEMA) Flood Maps, which are online at <https://www.fema.gov/flood-maps>.
- **Storm Drain System Flooding** - Flooding due to stormwater runoff volume being greater than the storm drainage system's capacity, which is exacerbated when the storm drainage system is clogged with trash and/or debris.
- **Flooding Related to Site Issues** - Flooding due to inadequate building gutters, downspouts, and area drains; poor site drainage; high groundwater; or sanitary sewer back-ups.



Source: NFIP Guidebook, FEMA

Damages can also occur due to rain-saturated soils triggering both mudslides and retaining wall failures, and due to stormwater eroding stream banks or depositing sediments.

Properties that are located within the mapped floodplain are especially susceptible to impacts from stream flooding. This is of concern for residents, because there are 2,397 properties in Roanoke County located in the floodway, 3,655 in the 100-year floodplain, and 4,295 in the 500-year floodplain. (Note that some properties are in one or more of these zones.) If YOUR property is located within a floodplain, it is wise to learn about and understand the inherent risks associated with flooding and what you can do to minimize such risks.

WHAT IS A FLOODPLAIN?

A floodplain is that area of land along a stream or creek that spans from the top of the creek's bank on one side of the creek to the top of the bank on the opposite side. It includes both the **floodway** and the **flood fringe**, as described below:

Floodway - The stream channel and portion of the adjacent floodplain that must remain open to permit passage of flood waters up to the base flood (100-year storm). The floodway boundary is set by performing an analysis that simulates (or models) the filling of the floodplain. This "squeezes" the flood waters towards the channel and causes the flood level to rise. At the point where the flood level rises by 1 foot, the floodway boundary is set.

Floodplain Fringe - Consists of the remainder of the floodplain adjacent to the floodway. The boundary is set at the base flood elevation (100-year flood). The concept of the 100-year flood is based on probabilities. At the boundary of the 100-year floodplain, there is a 1% chance of annual flooding. (Similarly, at the boundary of the 500-year floodplain, there is a 0.2 % chance of a flooding event occurring in any given year.)

WHAT SHOULD YOU DO TO PROTECT YOUR PROPERTY IN THE FLOODPLAIN?

- **Buy flood insurance.** According to FEMA, "even if your property is not in a high-risk zone, you may need flood insurance because most homeowners insurance doesn't cover flood damage. If you live in an area with low or moderate flood risk, you are 5 times more likely to experience flood than a fire in your home over the next 30 years. For many homeowners, a National Flood Insurance Program's flood insurance policy could cost less than \$400 per year. Call your insurance agent today and protect what you've built."
- **Keep drainage inlets on or near your property clear of grass, leaves, and trash.** This will ensure that they can accept stormwater runoff during rain events and will help to minimize street and yard flooding.
- **Make sure all sheds and accessory structures are built outside of the floodway.** And, be sure to get a building permit before you install one!
- **Clean out roof gutters and downspouts.**



WHAT DOES THE COUNTY DO TO PROTECT PROPERTIES IN THE FLOODPLAIN?

Roanoke County is NOT responsible for maintaining private property in or outside of the floodplain; it is the property owner who is responsible for maintaining their own property. However, the County does have a storm drainage team with 9 full-time employees and a Floodplain Manager/Engineer. This group performs many services associated with County-owned infrastructure, as follows:

- Maintains and improves County-owned drainage system.
- Plans and constructs capital projects (including the pursuit of grant funding for projects).
- Encourages owners of flood prone property to retrofit their homes with measures to mitigate against flooding.
- Performs routine maintenance on culverts and inlets in public drainage easements outside of the Virginia Department of Transportation's (VDOT's) right-of-way.
- Enforces the floodplain ordinance, including the issuance of Notices of Violation.
- Issues floodplain development permits.
- Partners with VDOT in planning and/or constructing capital improvement projects.
- Responds to citizen drainage concerns.



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This newsletter is brought to you by Roanoke County, Department of Development Services, pursuant to the County's requirements under the Community Rating System (CRS), a voluntary program for recognizing and encouraging community floodplain management activities that exceed the minimum standards set up for the National Flood Insurance Program. Should you have any questions about the CRS Program or other material in this newsletter, please contact Nickie Mills, Floodplain Manager, at (540) 772-2033 or via email at nmills@roanokecountyva.gov.



Quick Tips for Flood Preparedness

MAKE AN EMERGENCY KIT

It should include the following:

- Important documents and contact information; water; non-perishable food.
- Battery operated radio; local maps; emergency blankets.
- Batteries; flashlight; solar chargers for cell phones; first aid kit; medications.
- Change of clothes; cash.
- Tools; duct tape.
- Can opener.
- Whistle; light sticks.
- Trash bags; sanitation supplies; re-closeable storage bags and/or waterproof containers.
- Toilet paper; hand sanitizer; wet wipes.

PLAN FOR AN EMERGENCY

- Develop an exit strategy for your family and pets, to include your shelter plan, evacuation route, and family communication plan.
- Sign up to receive emergency alerts from Roanoke County at the following website:
<https://www.roanokecountyva.gov/rocoalert>.
- Acquire flood insurance; review your policy at least annually to ensure you have ample coverage for your needs.
- Make your home safer (see p. 8).
- Develop a detailed inventory of your property's contents to prove the value of what you owned before a disaster.
- **\$**ave money for a "rainy day."

Remember . . .

- Planning for a disaster is the best way to survive it.