

# FLOODING IN ROANOKE

WHAT EVERYONE SHOULD KNOW





# FLOOD PREPAREDNESS

Floods are the most common and widespread of all natural disasters. Most of the severe flooding in Roanoke occurs along the following 13 major creeks and rivers: Barnhardt (Cravens) Creek, Garnand Branch, Glade Creek, Gum Spring, Lick Run, Mudlick Creek, Murdock Creek, Murray Run, Ore Branch, Peters Creek, Tinker Creek, Trout Run and the Roanoke River. The flooding of November 1985 was the worst on record of the Roanoke River and many of the above tributaries. It was a reminder of the danger and damage that can result from widespread heavy rainfall in our community. The most recent significant flooding event was during October 2018 when precipitation from the remnants of Hurricane Michael resulted in the Roanoke River at Walnut Ave. bridge cresting at a height of 16.41 ft which places it 8th on the list of all time flood events. Hurricane Michael caused over \$6B dollars of property damage across the east coast including many millions here in the Roanoke Valley. Because of the mountainous terrain throughout the Roanoke Valley, flooding usually occurs quickly and with high velocity.

The City of Roanoke is committed to protecting our citizens and their property from floods, as well as helping reduce rates that citizens pay for flood insurance. The City of Roanoke participates in the **Community Rating System (CRS)** of the **National Flood Insurance Program (NFIP)**. The CRS rewards communities that reduce the likelihood of flood damage and create public awareness beyond baseline NFIP requirements. This brochure is part of our efforts to inform citizens about floodplain insurance. As a result of the City's activities and projects, residents receive a 15% reduction in flood insurance premiums. Please read this brochure and share this information and safety tips with all members of your household.

# FLOOD PROTECTION INFORMATION

## Know Your Flood Risk

The first and most important piece of information to obtain is how likely will your home be flooded. The easiest way to tell if your property is in a floodplain is to check the **City of Roanoke Real Estate GIS**. The City of Roanoke provides floodplain information for individuals owning property within the city limits in the Special Flood Hazard Area (SFHA). These services include:

- Flood Zones
- Base Flood Elevations
- Flood Insurance Rate Maps
- Panel Numbers
- Elevation Certificates
- Flood Depths
- Floodway determinations
- Information on Areas with Natural Floodplain Functions
- Local Drainage Problems

Flood maps and flood protection references are available at [fema.gov](http://fema.gov) and [dcr.virginia.gov](http://dcr.virginia.gov). Visit FEMA's online **Flood Map Service Center** or DCR's website to access the **Virginia Flood Risk Information System (VFRIS)** to view flood zones and other information.

## The Flood Warning System

Since the Roanoke River drains a much larger area than any of the other creeks in Roanoke, its flood waters are more easily predicted in advance. To aid in this prediction, the City maintains a number of rainfall and stream gauges as far away as Blacksburg. These gauges allow officials to predict when and how high flooding will be along the Roanoke River. Flooding along the Roanoke River can typically be predicted 6 to 12 hours before it occurs, and warning information will be broadcast over local radio and television stations. In the event of heavy rainfall, tune in to local radio news station WFIR AM 960, or other local radio or Roanoke Valley Television RVTV-3 to listen for flood warnings in your area. Visit the National Weather Service and Roanoke Flood Preparedness website for information on flood warnings and current river levels in your area. A flood watch means severe weather conditions are possible – be alert. A flood warning means flooding is imminent or has occurred – take precautions immediately. The Roanoke River flood stage is 10 ft. at the Walnut Ave gauge.

There is no better time than now to prepare for a flood. Signup for the Emergency Alert System (EAS) to receive emergency notifications. Visit **Ready.gov** to make a plan and be prepared.

Scan this to  
get real-  
time data



**SHARKS**

The Stream Hydrology And Rainfall Knowledge System

## Know The Flood Prone Roads *Turn Around, Don't Drive*



- 10th St NW
- 13TH St NE
- Arbor Ave SE
- Arbutus Ave SE
- Baldwin Ave NE
- Bennington St SE
- Boulevard St SW
- Brambleton Ave SW
- Franklin Rd SW
- Franklin Rd SW & Wonju St SW
- Deyerle Rd SW
- Edgewood St SW
- Campbell Ave SW
- Cravens Creek Rd SW
- Jefferson St SE
- King St NE
- Piedmont St SE
- Wiley Dr SW
- Wise Ave SE

# MAP INFORMATION

The City's Stormwater Utility provides information based on the **Flood Insurance Rate Map (FIRM)**, an official Federal Emergency Management Administration (FEMA) map of the floodplain areas. This information is available by calling or visiting the Stormwater Division, or accessing the City's Real Estate GIS. The map information provided by the City is general in nature and is not considered a guaranteed determination. The mortgage lender is responsible for determining if a flood insurance policy is required for a loan. Local flood maps and additional information on flooding and property protection are available at the reference desk of the City's Main Library, located at 706 S. Jefferson St., and online through **FEMA's Flood Map Service Center**.

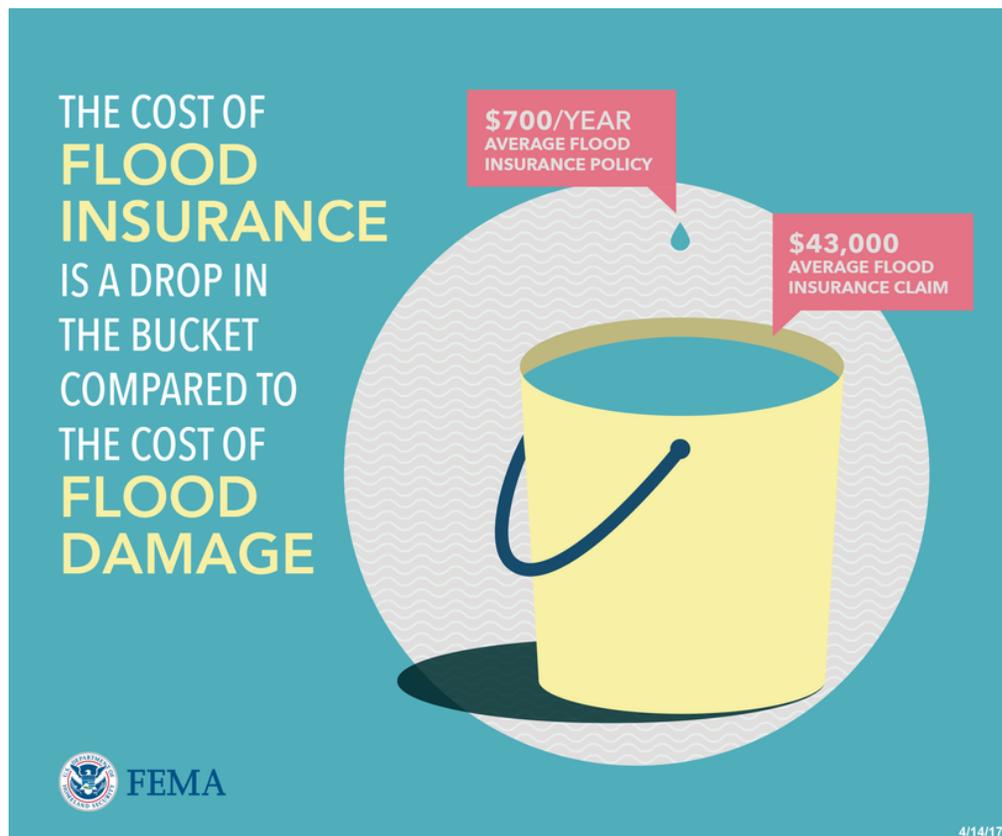


# INSURE YOUR PROPERTY

Protect the life you've built. Purchase flood insurance.

Standard homeowners' insurance policies do not cover losses due to flooding. The City of Roanoke participates in the National Flood Insurance Program, which makes it possible for every Roanoke property owner to obtain federally backed flood insurance. This insurance is available to any owner and renter of insurable property (building and/or contents) in Roanoke. The cost will vary depending on the amount of coverage and the degree of flood hazard, based on property being located in or outside the Special Flood Hazard Area (SFHA). Preferred Risk Policies are also available for properties outside high risk areas with low or moderate flood risk. In 2008, the City obtained a Community Rating System Class 7, providing a 15 percent discount on premiums to those who are required to have flood insurance. If you purchase a home in the floodplain with a federally backed mortgage, it is a requirement that you have flood insurance. Flood insurance policyholders in SFHA are encouraged to include **Increased Cost of Compliance Coverage (ICC)** in their flood insurance policy, especially for Pre-FIRM buildings. ICC can provide up to \$30,000 to help pay the costs of bringing a home or business into compliance with the City of Roanoke's floodplain ordinance. You may be eligible to file a claim for your ICC coverage when your building is "substantially damaged," when the cost to repair or improve the structure equals or exceeds 50 percent of the market value of that structure, or when your building is considered a "repetitive loss." A structure is considered to be a repetitive loss when it has been damaged by a flood two times in the past 10 years, and the cost of repairing the flood damage is equal to or exceeds 25 percent of its market value.

Your current insurance agent may be able to help you get flood insurance. Most companies can write an NFIP flood insurance policy for you. If you need more help, **FloodSmart.gov** can provide names of local agents that provide NFIP flood insurance. You may also call the toll free number 1-888-379-9531 to ask for a flood insurance agent referral. There is normally a 30 day waiting period before flood insurance goes into effect, so the time to apply is now.



## FEMA Extends Grace Period for Flood Insurance Renewal Premiums

To support National Flood Insurance Program policyholders amid the COVID-19 pandemic, FEMA is extending its 30-day grace period for policy renewals up to 120 days. This is effective for National Flood Insurance Program policies with an expiration date between February 13 - June 15, 2020.

# PREPARE AND PROTECT

## Prepare And Protect Your Family

*No one can stop a flood, but there are many things you can do before, during and after a storm to protect your family.*



**Before** a flood, take steps to stay informed with weather reports. Register your mobile device to receive the City's emergency notifications using the Reverse 911 registration at [roanoke.onthealert.com](http://roanoke.onthealert.com). If the forecast predicts that a flood will threaten your property, turn off electricity at the breaker and move valuable items to a safe location. Build or restock your emergency preparedness kit to include items such as a flashlight, batteries, supply of food and water, and first aid supplies.



**During** a flood, do not walk or drive through flooded areas. Do not drive around road barriers. Just 6 inches of moving water can knock you down and 2 feet of water can sweep your vehicle away. If floodwaters rise around your car but the water is not moving, abandon the car and move to higher ground. If the water is moving, do not leave the car.



**After** a flood, return home only after authorities state it is safe. NEVER turn the power on or off, or use an electrical tool or appliance while in standing water. Be aware of areas where floodwaters have receded and watch out for debris. Photograph damage of your property for insurance purposes.

## Build Responsibly

A permit is required for any activity occurring within a floodplain area. Always check with the **Department of Planning, Building, and Development** before you build, re-grade, or fill on your property. New buildings in the floodplain must be protected from flood damage. The City's building code requires that new buildings or "substantial improvements" to existing buildings must be constructed with the lowest floor elevated or flood-proofed to a minimum of two feet above the base flood elevation. A substantial improvement is any repair, reconstruction, or improvement of a structure, the cost of which equals 50 percent of the market value of that structure, regardless of the cause of damage. The City of Roanoke Department of Planning, Building and Development can be reached at 853-1090.

## Protect Your Property

There are various actions which you can take to reduce flood damage to your home or business. Electrical panels, furnaces, water heaters, and washers/dryers should be elevated or relocated to an area less likely to be flooded. Basement floor drains and backwater prevention valves can be installed and interior flood walls can be placed around utilities. If flooding is likely, and time permits, move essential items and furniture to the upper floors of your home. Keep materials like sandbags, plywood, plastic sheeting, and lumber handy for emergency waterproofing. These actions will help minimize the amount of damage caused by floodwaters. The City's Stormwater Utility maintains data on historic flooding elevations on various channels as well as floor elevations on some structures adjacent to these channels. The Stormwater Utility, with the assistance of the Department of Planning, Building, and Development, can provide on-site advice on flooding, drainage, stormdrain problems, and modifications to protect buildings from flooding.

# PREVENTING FLOOD DAMAGE

## Protecting Natural Floodplain Functions

When portions of floodplains are preserved in their natural state, or restored to it, they provide many benefits to both human and natural systems. Floodplains provide floodwater storage and conveyance to reduce flood velocity and flood peaks, and filter nutrients and impurities from runoff. These natural processes cost far less than it would take to build facilities to correct flood, stormwater, water quality and other community problems. By transforming stream and river floodplains from problem areas into value-added assets, the community can improve its quality of life.

Help us preserve natural areas by not pouring paint, oil, grease, pesticides, or other pollutants in the storm drains. Stormwater runoff from roofs, streets, and lawns carry these pollutants to the storm drain system where they are carried, untreated, to the nearest river or stream. Polluting our rivers and streams will damage the resiliency that our natural floodplain areas contribute to our community. It is the communities responsibility to preserve natural areas in the floodplain whenever possible. The City has adopted ordinances to reduce future development in our natural floodplain areas. The City is also committed to the reduction of flood hazards. In conjunction with the Army Corps of Engineers, the City has completed the **Roanoke River Flood Reduction Project (RRFRP)**, which reduces flooding and the risk of flooding for some properties along the Roanoke River. These improvements will decrease flooding from smaller, more frequent rainfalls; however, it will not protect against large floods like that which occurred in 1985.



*Be part of the solution, not the pollution.  
Together, we can create a Clean Water Legacy.*



Install a rain barrel. Rain barrels are typically connected to gutter downspouts and collect the runoff from roofs. You can use this stored water for non-potable uses such as watering the lawn and gardens or washing your car.



NEVER dump anything down the storm drain or into streams and report anyone who does.



Apply lawn chemicals sparingly. Do not apply before a rain event.



Plant a tree. Trees help keep soil in place, and their roots soak up water reducing the amount of runoff.

Keep grass clippings and other yard waste out of street gutters and storm drains. Drains blocked by debris can cause flooding. Compost or mulch-mow your lawn instead.



Do not litter. Dispose of hazardous waste on the third Saturday of each month at the Roanoke Valley Resource Authority at 1020 Hollins Road NE. Call 540-283-6562 to make an appointment.

Learn more about what you can do at [www.roanokeva.gov/Stormwater](http://www.roanokeva.gov/Stormwater).

## Drainage system maintenance

The City of Roanoke is drained by a stormdrain system which is a combination of underground pipes and open ditches. Maintenance of these systems is very important. Depositing trash, grass clippings, branches, or soil in an inlet, pipe or ditch obstructs the flow of water and can cause flooding of roads and private property. It is the responsibility of all property owners to keep ditches on private property clear and clean of debris.

The City continues to monitor and mitigate stormwater and flooding problems within its limits. If you are aware of a problem, or a potential problem, please notify the Stormwater Division at 853-5900.



City of Roanoke  
Stormwater Utility  
1802 Courtland Road, NE  
Roanoke, Virginia 24012

Flooding is a concern in Roanoke and frequent minor flooding can cause major property damage. National Flood Insurance Program (NFIP) coverage can be obtained from most insurance agents. For more information about the NFIP call toll free 888-379-9531, or visit the NFIP's website at **[www.FloodSmart.gov](http://www.FloodSmart.gov)**. The City of Roanoke can assist with floodplain questions. For more information, please call 540-853-5900 or visit the City's web site at **[www.roanokeva.gov/floodpreparedness](http://www.roanokeva.gov/floodpreparedness)**.

For questions please call 540-853-5900 or visit  
the City's website at [www.roanokeva.gov](http://www.roanokeva.gov).