



# FLOOD SAFETY

90 percent of all natural disasters in the United States involve some sort of flooding. Just one inch of water in a home or office costs thousands of dollars in cleanup and repair costs. Floods are one of the most common hazards in the U.S., but not all floods are alike. Some floods develop slowly, while others such as flash floods can develop within minutes and without visible signs of rain. Flood threats include: flash flooding, river flooding, storm surge, tidal flooding, snowmelt, burn scars and dam breaks.

Flash floods can occur within a few minutes or hours of excessive rainfall, a dam or levee failure, or a sudden release of water held by an ice jam. Overland flooding, the most common type of flooding event, typically occurs when waterways such as rivers or streams overflow their banks as a result of rainwater or a possible levee breach and cause flooding in surrounding areas.

## KNOW YOUR RISK

Anywhere it rains, it can flood! Flooding is a statewide threat to life and property across the Commonwealth.

### HURRICANE FRAN | SEPT. 5-6, 1996

Dropped 8 to 16 inches of rain over the mountains and the Shenandoah Valley; in one hour some areas saw 3.5 inches of rain.

### HURRICANE ISABEL | SEPT. 18, 2003

Dropped 20 inches of rain in Sherando, Va. Turned 100 Virginia localities into disaster areas and the storm killed 32 people. 80 percent of the state's population was without power.

### HURRICANE CAMILLE | AUG. 19-20, 1969

Dropped 27 inches of rain, on Nelson County in eight hours resulting in 153 fatalities from flash floods and mudslides.

### TROPICAL STORM AGNES | JUNE 21, 1972

Dropped 16 inches of rain on Fairfax County. At the height of flooding, over 600 miles of highways were submerged across the state.

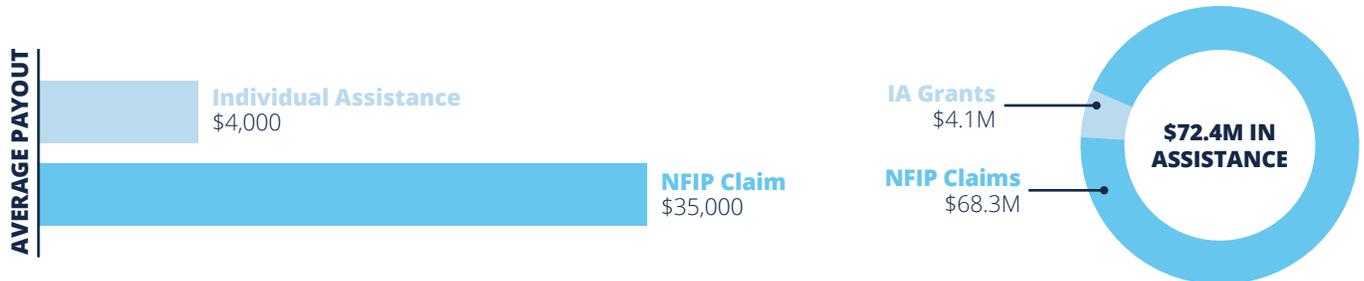
### HURRICANE MATTHEW | OCT. 8-9, 2016

Dropped over a foot of rain in southeast portions of Virginia, rainfall and moderate tidal flooding led to severe flooding and more than 260,000 customers were without power.



## FINANCIAL ASSISTANCE PAYOUTS | HURRICANE MATTHEW, VIRGINIA (2016)

Do not depend on FEMA assistance to recover from a disaster! After a disaster, to qualify for FEMA assistance (Individual Assistance) a Presidential federal disaster declaration must be declared and the program has financial limitations. As the chart below illustrates, having a flood insurance policy, before a disaster strikes, better protects your financial investment. Residents impacted by Hurricane Matthew in Virginia received significantly more financial assistance to rebuild their homes by having a flood insurance policy.



Visit the Virginia Department of Conservation and Recreation's (DCR) Virginia Flood Risk Information System (VFRIS) at [www.dcr.virginia.gov/vfris](http://www.dcr.virginia.gov/vfris). VFRIS is a collaboration between DCR and the Virginia Institute of Marine Science's Center for Coastal Resources Management. VFRIS helps communities, real estate agents, property buyers and property owners discern an area's flood risk. By pulling together information from the Federal Emergency Management Agency, U.S. Fish and Wildlife Service, Esri GIS and the Virginia Geographic Information System, VFRIS allows users to quickly locate and see if property is within the Special Flood Hazard Area (SFHA).

## FLOOD INSURANCE

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### *To prepare for a flood, you should:*

- » Purchase flood insurance to protect your home, your business and your family's financial security from the costs associated with flood damage.
- » Elevate the furnace, water heater, electric panel and other utilities in your home if you live in an area that has a high flood risk.
- » If feasible, construct barriers to stop floodwater from entering the building and seal walls in basements with waterproofing compounds.
- » Consider installing "check valves" to prevent flood water from backing up into the drains of your home.
- » Build an emergency kit and make a family emergency communications plan.

## BEFORE A FLOOD

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### *Flood insurance protects your home, your business and your family's financial security against the costs associated with flood damage.*

- » Don't wait until you see the next storm coming, flood insurance policies have a 30-day waiting period before taking effect.
- » Most property insurance policies do not cover flood losses.
- » 2018 was one of the wettest years on record in Virginia's history.
  - » Several areas along the Blue Ridge Mountains saw more than 80 inches of precipitation.
  - » 2018 was Richmond's wettest year since the 1880s.
  - » 2018 was Washington, D.C.'s wettest year ever recorded.

**Contact your insurance agent or the National Flood Insurance Program (NFIP) call center at 888.379.9531 for an agent referral or visit [www.floodsmart.gov](http://www.floodsmart.gov).**

## DURING A FLOOD

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### FLOOD WATCH

**Flood Watch** | Flooding is possible; tune in to NOAA Weather Radio, commercial radio, social media or television for the latest information.

**Flood Warning** | Flooding is occurring or will occur soon; if advised to evacuate, do so immediately.

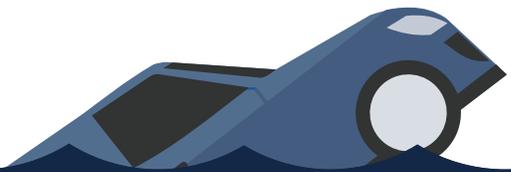
### **Turn Around Don't Drown.**

Never attempt to drive through a flooded road, the depth of water is not always obvious. Visit [www.weather.gov/safety/flood-turn-around-dont-drown](http://www.weather.gov/safety/flood-turn-around-dont-drown) for more information. Before driving, visit [www.511Virginia.org](http://www.511Virginia.org) or call 511 for real-time traffic information and road conditions.

### FLASH FLOOD

**Flash Flood Watch** | Flash flooding is possible; be prepared to move to higher ground. Tune in to NOAA Weather Radio, commercial radio, social media or television for the latest information.

**Flash Flood Warning** | A flash flood is occurring; seek higher ground on foot immediately.



## AFTER A FLOOD

- » Use extreme caution and avoid unnecessary risks if you encounter covered roads or fast-moving waters.
- » Do not allow children or pets to play in floodwaters which may contain debris that can break the skin or entrap legs and arms.
- » Do not wade through floodwaters with broken skin. Viruses and other organisms can infect wounds causing serious illness.
- » Avoid swimming or wading in ditches, streams, and rivers for at least three days following a rain event or until waters return to normal levels.
- » If you cannot avoid wading through floodwaters, be sure to wash exposed skin and clothing with soap and water.
- » If you have an underlying illness like diabetes, liver disease, or cancer, you are more vulnerable to infections and should avoid all contact with floodwaters.
- » Visit the Recover & Rebuild section of our website at [www.vaemergency.gov](http://www.vaemergency.gov) to learn more about food and water safety precautions following a power outage, flood or other natural disaster.

## FLOOD CLEANUP



Wear protective equipment: gloves, safety glasses, rubber boots and masks to protect you from debris and airborne particles, e.g., mold and dust.



Throw out any food including canned items that were not maintained at a proper temperature or have been exposed to floodwaters. Do not eat food from a flooded garden.



Air out enclosed spaces by opening all doors and windows whenever you are present. Leave as many windows open when you are not present as security concerns allow.

### WHEN IN DOUBT, THROW IT OUT.

Clean and disinfect everything that got wet. Mud and standing water left from floodwater can contain sewage, bacteria and harmful chemicals.



Discard saturated porous materials such as mattresses or upholstered items, especially those with visible fungal growth.



Tear out flooring, paneling, drywall, insulation and electrical outlets saturated by floodwater.



## POSSIBLE RECOVERY RESOURCES

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### LOCAL

Report disaster damage to your home and business to your locality's Office of Emergency Management.

Contact your city or county's department of Social Services, Human Services, Community Services Board, Public Health, Housing and local Office of Emergency Management to access additional resources and information after a disaster.

### FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

#### *Individuals and Households Program (IHP)*

If a Presidential disaster declaration is made, FEMA's Individuals and Households Program **may** provide financial help or direct services to those who have necessary expenses and serious needs if they are unable to meet these needs through other means. Contact the FEMA Individuals and Households Program at 800.621.FEMA.

#### *Public Assistance: Local, State, Tribal and Private Nonprofit*

FEMA's Public Assistance (PA) grant program **may** provide federal assistance to government organizations and certain private nonprofit (PNP) organizations if a Presidential disaster declaration is declared.

PA provides grants to state, tribal, territorial, local governments and certain types of PNP organizations, so that communities can quickly respond to and recover from major disasters or emergencies. Contact the FEMA Public Assistance Division at 202.646.3834.

### SMALL BUSINESS ADMINISTRATION (SBA)

The SBA **may** loan money to homeowners, renters and business owners. Homeowners may borrow up to \$200,000 for disaster-related home repairs. Homeowners and renters may borrow up to \$40,000 to replace disaster-damaged personal property including vehicles. The SBA may not duplicate benefits from your insurance or FEMA. You may receive an SBA referral when you apply with FEMA. Contact the SBA at 800.659.2955 from 8 a.m. - 9 p.m., Mon. - Fri. or email [disastercustomerservice@sba.gov](mailto:disastercustomerservice@sba.gov).

### U.S. DEPARTMENT OF AGRICULTURE (USDA)

Visit the USDA Disaster Resource Center at [USDA.gov](http://USDA.gov) where you will find information about specific disasters and emergencies, how to prepare, recover, and help build long-term resilience, as well as information about USDA assistance following disaster events.

## WHO TO CALL

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### 2-1-1

24/7, statewide trained professionals who listen to your situation and offer sources of help using one of the largest databases of health and human services in Virginia. Visit [www.211virginia.org](http://www.211virginia.org) for more information.

### 3-1-1

In select localities throughout the Commonwealth, 3-1-1 connects callers to their local government, non-emergency, citizen services including information, services, key contacts and programs.

### 5-1-1

**"Know Before You Go,"** offers real-time traffic information throughout the Commonwealth. Anytime you need it, anywhere you are. For more information, visit [www.511virginia.org](http://www.511virginia.org).

### 8-1-1

**"Call Before You Dig - It's the Law,"** is a free Virginia communications center for excavators, contractors, property owners and those planning any kind of excavation or digging. When recovering from a disaster, an individual or business may plan to excavate. Participating utilities will locate and mark their underground facilities and lines in advance to prevent a possible injury, damage or fines.

### 9-1-1

For emergencies only, including fire, medical, reporting accidents, crimes in progress and suspicious individuals or events. 9-1-1 is not to be used for traffic or weather updates and information request, please keep the lines clear for those seeking emergency support.

## ORGANIZATIONS

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Visit [www.vaemergency.gov/get-involved-to-find-out-how-you-can-help-after-a-disaster](http://www.vaemergency.gov/get-involved-to-find-out-how-you-can-help-after-a-disaster).

**National Voluntary Organizations Active in Disaster**  
[www.nvoad.org](http://www.nvoad.org)

**Virginia Voluntary Organizations Active in Disaster**  
[www.vavoad.org](http://www.vavoad.org)

**Virginia Disaster Relief Fund**  
[www.vaemergency.gov/get-involved/virginia-disaster-relief](http://www.vaemergency.gov/get-involved/virginia-disaster-relief)