

POST-FLOOD COMMUNITY PREPAREDNESS GUIDE

FLASH FLOOD, LANDSLIDE AND DEBRIS FLOW 2014 EDITION



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Boulder County wants you to be prepared for any flooding, landslide or debris flow situations that arise due to normal spring runoff, intense rain events and/or abnormal land conditions following the 2013 Flood.

If you would like further assistance in emergency planning or if you have any questions, call the Boulder Office of Emergency Management at 303-441-3390 or visit www.BoulderOEM.com.

Know the Risks

- Flash Flooding
- Thunderstorm-Related Flooding
- Landslide
- Debris Flow
- Spring Runoff

As a result of last year's rain and flooding, the risks of flash flooding may increase this year because of the following reasons:

- Reduced creek and river capacity due to increased sediment deposits, rocky debris and location changes of creek banks
- Woody debris deposits in and along rivers and creeks potentially causing debris dams and subsequent flash flooding
 - Flash flooding can occur very quickly, even when it is not raining at your location. The heaviest rainfall may be upstream from you, and water surges may happen if debris or earthen dams suddenly break free.
- Debris flows and landslides may cause access issues and obstruct creek flows
- Reservoirs are at capacity in the region and will spill earlier than usual causing additional flow during the runoff and thunderstorm season
- Altered locations and conditions of rivers and creeks may impact structures and infrastructure at risk (i.e. homes, roadways, culverts and bridges)



Vehicle Safety

- Nearly half of all flash flood fatalities are vehicle-related. As little as 18 inches of water will float most automobiles.
- Never drive your vehicle through flood waters
- While driving your vehicle, be aware of dips, culverts, bridges and low-lying areas
- If your vehicle stalls, leave it immediately and seek higher ground

Landslide Awareness

Landslides can occur very quickly and may leave little reaction time. But there are a few things to watch for that may indicate the threat of a landslide:

- New cracks in pavement or foundations
- Noticeable tilting of trees or utility poles
- Broken water lines or other utility lines
- Unusually frequent occurrences of rockfalls
- Abrupt changes in stream flow

If you notice any of the above, call 911 to report your findings.

Safety Routes and Locations

- Plan to go to a safe location. Identify two locations located at higher ground in the case of flooding, and two locations out of the area in case of landslides.
 - Moving to higher ground is not necessarily the best choice in the case of landslides (see: Landslide Safety)
- Have a plan for your pets so you won't be delayed in leaving a danger zone
- Know more than one way to get to your safe locations on foot if necessary (see: Vehicle Safety)
- NOTE: The City of Boulder may not always be a safe location. City residents may also be affected by flash flooding or water surges in certain situations.
- Practice leaving by means of your safety routes
- Talk with family members and neighbors to plan where you will meet and how you will check in with each other at your safety locations

Landslide Safety

Be aware that intense, short bursts of rain may be particularly dangerous, especially after longer periods of heavy rainfall and damp weather. The following steps should be taken in the above situation:

- Stay alert and awake
- If you are in areas susceptible to landslides and debris flows, consider leaving if it is safe to do so. If you must remain at home, move to a second story if possible.
- Listen for any unusual sounds that might indicate moving debris, such as trees cracking or boulders knocking together
- If you are near a stream or channel, be alert for any sudden increase or decrease in water flow and for a change from clear to muddy water. Such changes may indicate landslide activity upstream, so be prepared to move quickly.
- Embankments along roadsides are particularly susceptible to landslides. Watch the road for collapsed pavement, mud, fallen rocks, and other indications of possible debris flows if driving (see: Vehicle Safety).



During a Flash Flood

Residents should take the following action in the event of a flash flood:

- Move to high ground immediately
- Stay out of floodwaters. Swift-moving water and debris can be deadly
- Stay away from power lines and electrical wires
- Leaving the area can pose significant dangers, as road washouts and landslides can occur along escape routes. If you plan to try to leave the area, give yourself as much time as possible, and know that it still may not be enough time (see: Vehicle Safety).

Stay Informed

- Sign up to receive free emergency alerts on home, work and cell phones, text messages and email. Visit www.boco911alert.com to register your phone number(s) and/or email address(es).
- Follow the Boulder OEM on Facebook and Twitter for updates:
 - [Facebook.com/BoulderOEM](https://www.facebook.com/BoulderOEM)
 - [@BoulderOEM](https://twitter.com/BoulderOEM)
- Contact your Fire Protection District and attend meetings in your community
- Stay informed through local radio (KOA - AM 850), television alerts and your own observations
- Monitor a NOAA Weather Radio (with S.A.M.E. and back-up battery)
- Listen for the latest Flood Watches, Warnings and Advisories:
 - **WATCH** indicates that life-threatening flooding is possible within the designated watch area
 - **ADVISORY** indicates that non-life-threatening flooding of small streams, streets and low-lying areas is occurring or is imminent
 - **WARNING** indicates that flash flooding or flooding has been reported or is imminent, and necessary precautions should be taken at once



Purchase Flood Insurance

You can buy flood insurance no matter where you live or what your flood risk, but you should not wait until the rainy/flood season (April-Sept) to make a decision.

There is a 30-day waiting period before coverage goes into effect.

By law, flood insurance is issued as a separate insurance policy through the Federal government, and can be purchased through your existing insurance company and agent.

Go to www.floodsmart.gov to find an agent who can help or for more information.



Sign up for Emergency Messages

Go to: www.boco911alert.com and sign up to receive emails, calls to your home, business or cell phone, and text messages.

Get Ready

Gather emergency supplies for **sheltering-in-place** at your home. If your home is located on high ground and it is NOT in danger from debris flows, you may choose to shelter-in-place. Plan to be on your own without water, gas and electricity for at least three days.

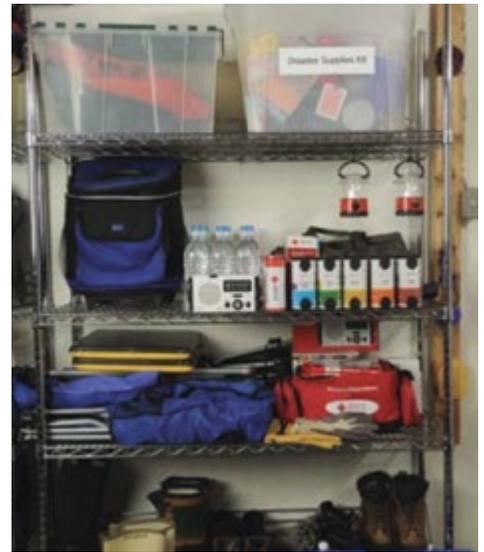
- Battery-powered radio and/or NOAA weather radio (with S.A.M.E. and back-up battery. Local frequency: 162.550 MHz Denver)
- Two (2) flashlights and extra batteries
- Extra blanket(s)
- Non-perishable foods
- Essential medications
- Personal hygiene items
- Important papers
- Manual can opener
- Water (1 gallon per person per day)
- Water purification tablets
- Paper towels
- Plastic utensils
- Pre-moistened towelettes
- Pet needs (food, medications, litter)
- Telephone that does not require a separate electricity source (i.e., one that plugs directly into a phone jack)

Gather emergency supplies to **take with you** if you need to leave quickly (also make this a “car” kit for items you may need if you are away from home when a flash flood or debris event occurs). Put these items in a backpack so they’ll be ready to go.

- Radio and/or portable NOAA Weather Radio (S.A.M.E.)
- Flashlight and extra batteries
- First aid kit
- Necessary medications
- Change of clothes
- Walking shoes
- Rain gear
- Gloves
- Important papers
- Important phone numbers
- Cellphone chargers
- Blanket(s) or sleeping bag(s)
- Food and water
- Water purification tablets
- Waterproof/windproof matches

Develop an emergency plan for your family. Disasters can occur at any time – if separated, how will you and your family reunite during or after an emergency if communications systems aren’t operating?

- Plan for how you and your family will communicate during and after an emergency. Identify a meeting location in case you can’t call one another.
- In some cases, a cell phone’s text capabilities will be available even when a call cannot be connected.
Note: Text messages also help cell tower congestion to a minimum, which is vital to emergency correspondence.
- Plans should address any individuals with access and functional needs, children, and pets
- Identify multiple routes for evacuating during the disaster
- Identify a shelter-in-place location in the home



Before the Flood

- Promptly notify Boulder County Road Maintenance at 303-441-3962, or in an emergency 911, if you see potential for roadway flooding or debris issues.
- Remove debris and sediment from drainage channels near your property. You may need to do this several times during a rainy season.
- Talk with your neighbors and family about how you will communicate during a disaster.
- Contact the Flood Recovery Center for information on using sand bags and other erosion control techniques to protect your property. Visit: www.BoulderCountyFlood.org or call 303-441-1705.

Boulder Office of Emergency Management

Address: 3280 Airport Road | Boulder, Colorado 80301

Phone: 303.441.3390 | www.BoulderOEM.com

Visit us online and download our Emergency Preparedness Guide

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HELPFUL WEBSITES:

- www.crh.noaa.gov/den
- www.BoulderCountyFlood.org
- www.BoulderOEM.com
- www.ReadyColorado.com
- www.BoulderFloodInfo.net