

...Winter Weather Preparedness Week Across New England And New York...  
...Today's Topic, Flooding, And Ice Jams...

All of the New England states as well as the state of New York, in partnership with the National Weather Service offices in these respective states, have designated this week as Winter Weather Preparedness Week.

Flooding is the greatest natural hazard to the citizens, landscape, infrastructure, property, and economy of Vermont and northern New York.

Flooding can occur at any time of the year, day or night. That is why it is so dangerous. Flooding during the winter can be the result of three separate sources, heavy rainfall on frozen ground, melting of snow and ice jams, or in many cases a combination of two or all three.

Generally, snowmelt alone will cause rises in area rivers and/or minor lowland field and road flooding. Meanwhile, the combination of heavy rainfall and substantial snow melt can lead to rapid surface water runoff into streams and rivers causing widespread flooding. Although this scenario typically occurs during the end of winter and early spring with the milder weather, it can occur at any time such was the case in January 1996.

Lastly, ice jam flooding generally occurs between mid-winter and early spring due to a prolonged warm spell accelerating snowmelt, thus enhancing runoff and leading to rises in water levels in rivers, causing river ice to break up and eventually the formation of an ice jam. Ice jams tend to develop along bends in the river, along the intersection of rivers and streams, or where there is an obstruction to the natural flow of water including man-made structures such as bridges. Ice jams can result in a rapid and dramatic rise in water levels along major rivers like the Winooski River at Montpelier in March 1992 or smaller waterways such as the Dish Mill Brook in East Burke in March 2008.

Ice jams can develop during the freeze-up stage, as ice forms within a river during spells of extremely cold temperatures. This ice development restricts the normal flow of the river and thus can lead to the development of an ice jam.

In order to provide advance notice of possible flooding, the National Weather Service issues flood watches and warnings.

A Flood Watch means that flooding is possible within the next 12 to 36 hours and preparations should be made in case of flooding. A Flood Warning means that flooding is imminent or occurring, and immediate safety actions are necessary.

National Weather Service meteorologists and hydrologists issue the following statements or warnings to highlight flood threats,

River Flood Warnings are issued for flooding of larger rivers and include forecasts of water levels at certain points along the river.

Flood Warnings are issued for flooding of smaller rivers and streams as a result of prolonged heavy rainfall and/or snowmelt and are issued on a county by county basis.

Flash Flood Warnings are issued by counties for smaller rivers and streams when rapid rises in water levels, over a short period of time, will result in flooding. The causative event can be from very heavy rainfall over a period of a few hours, dam breaks, or ice jams.

In addition, during the late Winter and early Spring months, the National Weather Service, in coordination with other agencies, monitors the snowpack and issues statements about the potential for Spring flooding.

Here are some safety and preparedness tips,

As the weather becomes more moderate with mild temperatures, be alert for ice break up and the increased likelihood of ice jams. Be alert to any rapid rises or falls in the river levels, a fluctuation in a river level may indicate that an ice jam has formed. Ice jams can result in dangerous flooding in a short period of time.

Never drive a car into a flooded roadway! Turn around, don't drown. Cars easily become stuck or washed away in flood waters and it is particularly dangerous at night, when road washouts may be difficult to see until it's too late.

Be alert for flooding if you live along any river or stream. Know the history of flooding in your area. Be prepared to seek higher ground if flood waters approach.

Always plan ahead by listening to the weather forecast on NOAA Weather Radio All Hazards. Report any flooding to the appropriate authorities and ask them to relay those reports to the National Weather Service. Always heed the advice of local officials concerning the need to evacuate.

For additional information, please check our web page at [weather.gov](http://weather.gov), then click on Vermont.