

## March 2010 Floods: River Crests, Impacts and Unique Challenges

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Mid and late March 2010 brought historic flooding to portions of southern New England. This presentation will review the compounding effect that multiple rain events had on area rivers, resulting in an increased vulnerability to flooding. A look will be taken at river flood crest values as well as the exceedance probability for those flood crests. Impacts related to those floods will also be presented. A brief look will be taken at the Blue Pond Dam failure in Hopkinton, RI.

This presentation will also discuss some unique challenges faced in modeling and warning during an extreme flood event. Examples include the need to acquire rating curve extensions, challenges with gauging, and special wording in NWS flood products used to convey the extreme flood threat. A film clip that illustrates working with the media during this historic event will be shown.

### **Presenters' Bios**

**Nicole Belk** is a Massachusetts native who graduated with a B.S. degree in Meteorology from The Pennsylvania State University in 1994. Nicole began her National Weather Service career as a Meteorologist Intern at the Weather Service Office in South Bend, Indiana. In 1996, Nicole transferred to the NWS Forecast Office in Charleston, West Virginia, where she was promoted to General Forecaster. In Charleston she became heavily involved in flood warning operations. During 2001 Nicole moved to NWS Taunton MA as Senior Service Hydrologist, and has been in Taunton ever since. She became an Association of State Floodplain Managers (ASFPM) Certified Floodplain Manager (CFM) in April 2007.

**Edward Capone** is the Service Coordination Hydrologist at the National Weather Service Northeast River Forecast Center in Taunton, MA. He received his Bachelor of Science in Civil/Environmental Engineering from Northeastern University in Boston in 1974. After 20 years in the private sector working on Dam Design and Dam Safety in the U.S. and Internationally, he joined the National Weather Service as a Hydrometeorological Analysis and Support (HAS) Forecaster in 1994. Since the NWS is the Nation's Steward regarding river forecasting, he has spearheaded an effort pertaining to river flood forecasting from potential catastrophic dam failures. He is a long time member of the Association of State Dam Safety Officials (ASDSO) and the Canadian Dam Association (CDA) and is an Association of State Floodplain Managers (ASFPM) Certified Floodplain Manager (CFM). Ed maintains a NWS COOP station (35 yrs) in Norton, MA and has created a website with a plethora of weather - hydro related data with even a real-time groundwater level and seismic monitoring station.