



## ARE YOU PREPARED FOR AMERICA'S MOST COMMON NATURAL DISASTER?

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Flooding affects a number of areas throughout the United States and seems to be occurring more frequently in recent years. Residents of New York State should be aware of their local threat to flooding and prepare accordingly. Utilities are part of the most vulnerable assets that are highly affected by flooding every year. Are you and your community prepared?

A few characteristics of floods includes overbank flooding in rivers/streams, mudflows, levee or dam failures, flash floods, debris floods, ice-jams, and coastal flooding. These factors should be taken into consideration when assessing your utilities vulnerability to flooding in order to ensure flood resilience. The term "100-Year Flood" and "500-Year Flood" can be misleading. The "100-Year Flood" does not refer to a flood that occurs every 100 years. It is the flood that has a 1% chance of being equaled or surpassed that year, while the "500-Year Flood" is the flood that has a 0.2% chance. This may seem unlikely to occur, but a "100-Year Flood" can occur two years in a row! This is why it is necessary to properly prepare for a disaster in order to protect your critical utilities.

Hurricane Irene, Hurricane Sandy, and Tropical Storm Lee are disasters that have affected multiple areas of New York State in recent years. Many communities located in southern portions of New York State were significantly affected by these events. Streams began to rise rapidly, while roads and homes became flooded. Unfortunately, areas affected by these storms are still recovering today.

So how can you prepare for this? The Environmental Protection Agency (EPA), has developed a Flood Resiliency Guide\* in order to help rural water and wastewater systems enhance their resilience to flooding. Flood Resilience is the ability to sustain an impact of a flood. This also includes minimizing damages and the ability to provide a quick recovery from the disruption of services. This tool, Flood Resilience: A Basic Guide for Water and Wastewater Utilities, includes materials to address common flooding issues, ways to approach mitigation options, and a plan to implement and evaluate financial opportunities to support flood resiliency within your utility. Mitigation options help a utility build resilience to flooding. The Guide includes four simple steps that utilize worksheets, instructional videos, and maps to address critical utility operations and assets.

During September, the EPA and NYRWA held two Flood Resiliency Training Sessions. During these sessions attendees

worked through each step in the Guide. During the morning, step one and two were covered. Attendees discussed a variety of threats to flooding and how to identify vulnerable assets and consequences to their utilities. During the afternoon, attendees evaluated mitigation options and developed a plan in order to implement these measures at their own facilities.

This interactive training session was beneficial for all. Attendees were able to share experiences and advice about this topic while focusing on preventive measures for future flooding disasters. We encourage students to access the guide at their facilities and implement a plan to become more resilient. NYRWA can assist utilities with working through the guide and implementing a resiliency plan.

Along with instilling a Flood Resilience Plan, your utility may also benefit from an up to date Emergency Response Plan, Asset Management Plan or Source Water Protection Plan, which NYRWA can also offer assistance with. The New York State Division of Homeland Security and Emergency Management Services has a Hazard Mitigation Plan that is available for more information pertaining to New York State flooding disasters. (Available online at [www.dhSES.ny.gov](http://www.dhSES.ny.gov)).

Please contact NYRWA if you are interested in learning more about Flood Resilience and your utility.

\*<http://water.epa.gov/infrastructure/watersecurity/emergencyplan/upload/epa817b14006.pdf> 💧💧