

**Florida Floodplain Managers Association  
2019 Annual Conferences  
Abstracts**

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**Title:** Building Resilience in a Changing Environment  
**Length:** 45 minutes  
**Subject:** Regulatory Building  
**Target Audience:** Engineers, FPM, Code Officials, Builders  
**Presenter Name:** Erin Ashley, PhD, LEED  
Federal Resilience Lead  
Atkins

**Biography:** Dr. Ashley is a Senior Researcher at Atkins North America. She has close to 20 years' experience in building science specializing in building failure analysis to natural hazards, post-disaster damage assessment, and risk and vulnerability assessments. Her work has spanned several significant wind, fire, flood and man-made events including Hurricanes Irma and Maria in the USVI and Puerto Rico, the 2011 Spring Tornadoes, Hurricane Sandy, and the terrorist events of 9/11.

Dr. Ashley has been involved in the development and implementation of National policy and resilient codes and standards over the last 15 years. She led the consulting efforts to write the Implementation Guide for the 2016 Executive Order on Wildland-Urban Interface Federal Risk Mitigation and has served in leadership positions on National code and standard committees. Dr. Ashley received her B.S. degree in Fire Protection Engineering, a MS and PhD in Reliability Engineering.

**Co-Presenter:** None

**Biography:**

**Abstract:** The 2017 hurricane season brought devastating impacts to residential, commercial buildings, critical facilities and infrastructure throughout the United States including significant impacts to the US Virgin Islands (USVI) and Puerto Rico (PR). The increase in natural hazards has highlighted the benefit of higher standards in all aspects of the building stock. The presentation will detail how the results of forensic studies through the FEMA Mitigation Assessment Team (MAT) program has highlighted the need for a common-sense approach to code adoption and enforcement. The recommendations provided to the communities can be used as a basis for other communities to help make their buildings safer, more resilient and able to withstand the impact of the next storm.

The presentation will provide an understanding of how natural disasters are impacting our built environment and the current policies in place to help increase the resilience of our buildings and infrastructure. We will examine how the lack of hazard resistant codes and standards affect residential building practices across the globe through case studies from the 2017 floods in Missouri and ongoing floods in the Caribbean.

The presentation will explore how technology such as ground mounted solar is changing the standard of living for many in the United States, however, may not have kept up with current disaster resistant standards and policy. Use recent examples from Hurricanes Irma and Maria to show limitations to ground mounted PV in high wind events and how

improvements can be made to increase resilience and ensure quick recovery for those who depend most on this technology.

Finally, we will discuss recent wildfires in California and how current fire protection and wildland urban interface codes may need to “think outside the box” to account for the changing environment, buildings and future events that will impact our communities.