

# **Flooding Impacts on Communities**

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## **Abstract**

Several flooding events in recent years have resulted in significant impact to local communities. Flooding has ranged from major regional events such as that caused by hurricane Sandy affecting multiple communities to relatively localized flooding that affects a portion of a community. This presentation will show the varying nature of community vulnerability to flooding, detail specific cases where critical community assets were damaged by flooding and investigate community response to flooding. The assessment of a community's vulnerability to flooding will focus on the hydrological engineering aspects of a variety of communities including location, watershed area, flood control facilities and other features. Also emphasized in the presentation is the need for a multi-disciplinary approach to addressing the issues related to flooding. Various engineering mitigation efforts including flood walls, flow regulation control, and raising structures above specific flood levels will be presented.

## **Biography**

ROGER RUGGLES is currently an Associate Professor in the Department of Civil and Environmental Engineering at Lafayette College. He is a nationally recognized expert in flooding and has over 30 years of experience as an engineer and educator. He is a registered professional engineer in Pennsylvania and past president of The Lehigh Valley Section of the American Society of Civil Engineers and was selected as Engineer of the Year in 2006. He currently serves as the Vice-Mayor for the City of Easton and chairs the Public Services Committee. Dr. Ruggles may be reached at [rugglesr@lafayette.edu](mailto:rugglesr@lafayette.edu).