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South Carolina's Dam Safety practices and flood protection infrastructure were put to the test in October of 2015. Record breaking rains caused catastrophic flooding, dams failed across the state, and no one anticipated how detrimental the impacts could be. This storm is arguably one of the most prolific rainfall events in recent U.S. history and has since caused many water leaders in South Carolina to focus on the efficacy of their dam safety program. One major component of the program is the requirement for high hazard dams to have an Emergency Action Plan (EAP).

According to the Federal Emergency Management Agency (FEMA) approximately 40% of state regulated high-hazard dams in the United States do not have an Emergency Action Plan (EAP). The agency states that "the absence of an EAP at most state-regulated dams is recognized by FEMA as a deficiency in national emergency preparedness." In many cases regulations are not strictly enforced and therefore dam owners must take the initiative to develop an EAP on their own.

With the importance of emergency preparedness in mind, SJWD Water District took the initiative to develop a detailed EAP prior to the prolific storm events of 2015, however have since accelerated these efforts for various other high-hazard dams including an EAP for two Dams in series (Lake Lyman and North Tyger Reservoir) in which impacts and emergency procedures were identified for the event of multiple dam breaches. The purpose of the EAP was to reduce the risk of human life loss or property damage in the event of a dam failure based on updated methodology in light of the recent record breaking rainfall events. In order to create a well-documented, user friendly plan, it was critical for SJWD to coordinate with a variety of stakeholders including local fire departments, local and statewide emergency management officials, SCDHEC, the National Weather Service, the Department of Natural Resources, etc.

This presentation will include an overview of the process involved with developing SJWD's Emergency Action Plans highlighting the importance of working with multiple state and county agencies and stakeholders to effectively mitigate impacts and how lessons learned from South Carolina's experience can promote awareness of EAP requirements and the importance of implementing them across the country.