

Creating Simplified Inundation Maps for Dam Break Emergency Action Plans

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New Environmental Protection Division (EPD) rules require all dams that may cause loss of life upon breaking to have emergency action plans (EAPS) (EPD, August 2016). EAPS are essential for dam break emergency response because they allow local authorities to issue warnings to at risk areas, identify infrastructure which may be compromised by flooding, and prepare emergency services to respond to affected flood areas quickly. As of 2014, only five percent of Georgia dams have EAPS (American Society of Civil Engineers). Nationally, the high cost of inundation mapping studies required to identify at risk areas prevents the inundation mapping necessary for EAP development. Simplified inundation mapping methodologies can produce accurate enough results to be used for EAP development while requiring less time, effort, and money than more complex analysis (National Dam Safety Review Board Emergency Action Plan Workgroup, 2009). This presentation will describe the underlying principles, advantages and disadvantages of three simplified inundation methodologies: the Department of Homeland Security's DSS WISE, the Federal Emergency Management Agency's GeoDam-BREACH, and the Army Corps of Engineer's HEC-RAS program's steady state model.

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Works Cited

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