



Is it worthwhile to update old inundation maps with new modeling software?

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Of the thousands of High Hazard and Significant Hazard potential dams in the USA, many likely have Emergency Action Plan inundation maps from software of the 1990's and early 2000's – DMBRK, as well as HECRAS 1-dimensional. When is it time to update maps with modern software, such as HEC-RAS 2-dimensional? Is it worth the time and money? This presentation is about a project GZA performed for a dam owner in New England who owns multiple dams as part of a water supply system. While GZA assisted this dam owner with EAP tabletop exercises, local police and fire emergency responders asked for inundation maps that show depth as well as the inundation area. GZA and the dam owner considered creating depth maps from the old modeling results, however, it was ultimately decided to perform updated modeling using 2-dimensional modeling. This presentation will include an overview of the project background, the hydraulic modeling methodology, the depth maps, as well as cross sections which the towns requested to help with visualizing the depths. In addition, GZA will present a comparison of the new maps with the prior maps, commenting on the cost of the project versus the benefits.