

## Utilizing GIS Tools for Flood Preparedness in Tennessee

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Recent flooding in Tennessee revealed a critical need to provide the public with accurate and timely flood tracking to help prevent loss of life and property. With sufficient stream gage and digital elevation data, linear referencing tools can be used to create flood profiles which can be extrapolated to quickly produce flood-inundation surfaces without complex hydraulic models. The U.S. Geological Survey (USGS) is developing a system for extrapolating flood depth and extent based on current or projected flood stage, and providing that information to community planners, emergency responders, and the public. The City of Nashville is working with the USGS, the U.S. Army Corps of Engineers, and the National Weather Service to develop a web mapping application (Nashville SAFE) which will aid emergency responders during a flood event. The application is being developed with Adobe Flashbuilder, the Flex API, and leverages Nashville's own ArcGIS Server map services.

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