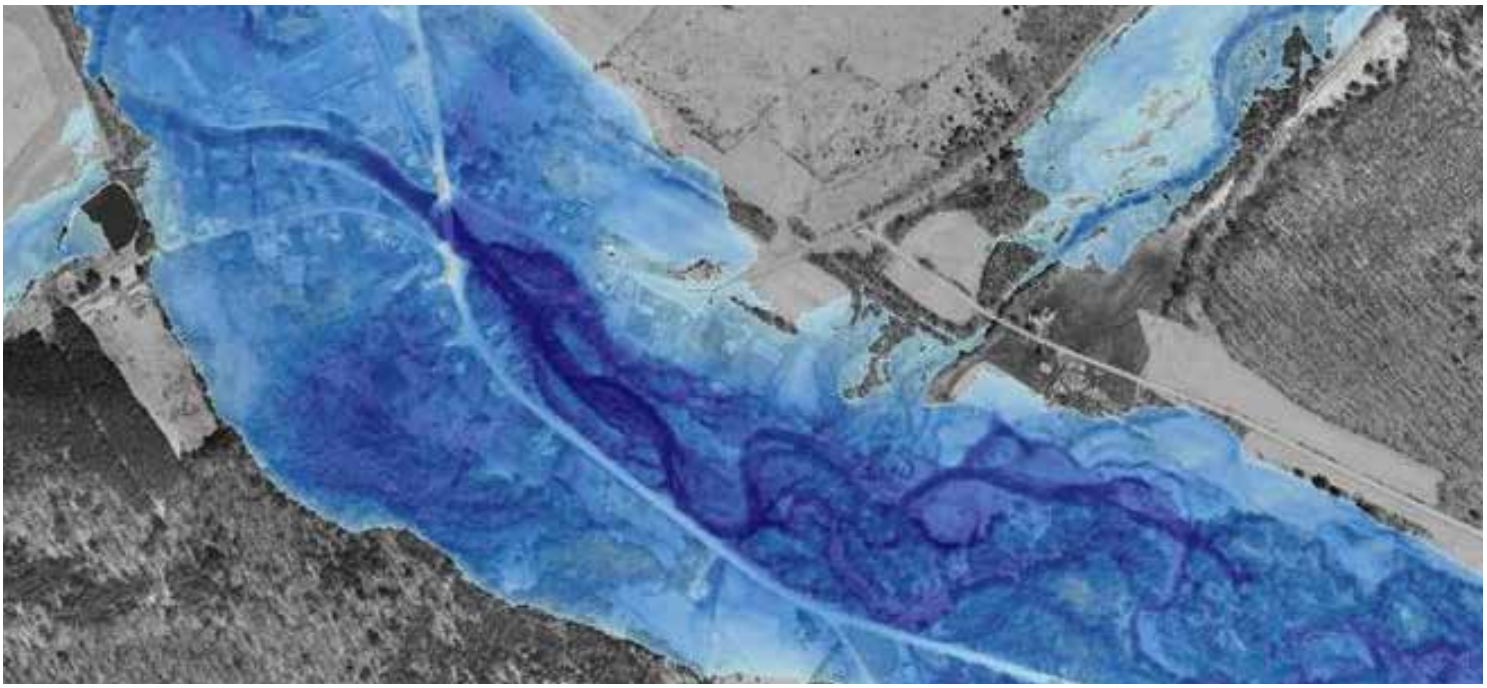

Hazus-MH in the State of Maryland

Updating the Plan

2011 marked the three-year plan update cycle for the State of Maryland. We were selected to help the state meet its update requirement. Review of previous plans from both 2005 and 2008 revealed that Hazus-MH had not been used to assess flooding damage, which is Maryland's most critical hazard in terms of property damage and loss.

While the flood analysis work from the previous Maryland plans met FEMA plan requirements — and notably the analysis work performed under the 2008 plan was quite extensive in its methodology and use of geographic information systems (GIS) — we promoted the use of Hazus-MH.

Use of Hazus-MH would provide the means for the following:

- Establishing a single repository for the storage of updated essential facility inventory and hazard data
- A single standard for the analysis of flood risks that leverages existing FEMA investments
- A framework to disseminate GIS-based data and results to all jurisdictions that can be incorporated into respective local plans
- The same framework can be leveraged for all future plan updates moving forward

DFIRM

Due to our long-standing relationship with FEMA and the National Flood Insurance Program (NFIP), our staff were aware that many of the jurisdictions in Maryland had new digital flood mapping — the same digital data that constitutes millions of dollars already spent on engineering and mapping to create FEMA's Digital Flood Insurance Rate Maps (DFIRM).

We included the use of DFIRM floodplains, both the 1% annual chance and 0.2% annual chance probability events, for as many flooding sources as were available, 20 of the 24 jurisdictions in the state in the 2011 plan update.

Getting the Most Out of the Budget

We wanted to make certain that funds available for the Maryland 2011 hazard mitigation plan update would reinforce the many benefits of Hazus, DFIRM data, and the means of communicating and sharing data.

Our work included collecting and cataloging all of the DFIRM and related data to produce digital depth grids — the data required of Hazus to analyze potential damages. Some of the digital data (and notably depth grids) came from academia — another element of the risk map vision, which includes an attempt to leverage work already completed in an effort to not waste valuable dollars already spent.

We ultimately performed flood damage analysis on each jurisdiction for both 1% annual chance and 0.2% annual chance probability events and produced export files that the state can make available to the various jurisdictions.

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Dewberry

We see beyond standard requirements

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Program Support

Implementation of comprehensive state or local hazard mitigation programs that reduce injury and property damage while maintaining critical societal functions are challenging today's limited government resources.

Our experienced team of engineers, mitigation planners, computer analysts, and GIS specialists have supported local, state, and federal hazard mitigation programs for nearly two decades. We offer an integrated, full-service hazard mitigation practice that can be customized to meet your specific program needs.

First, we listen to client program support challenges, needs and opportunities; then we follow-up with customized products and deliverables that expand local and state mitigation program management capacity and capability to protect people, property, and infrastructure.

Our team of former State Hazard Mitigation Officers, NFIP Coordinators, local emergency managers, and FEMA program leaders are supplemented by national emergency management and mitigation subject matter experts. We develop project-specific teams for every client with redundant staff at each position to provide you with promised deliverables on time and within budget. It's the Dewberry Way!

Mitigation Planning

To date, we have facilitated more than 200 local and multi-jurisdictional plan updates, five state hazard mitigation plans or plan updates, and 12 disaster resistant university plans.

Mitigation planning, as envisioned through the Disaster Mitigation Act of 2000, positions states, local governments, tribes, and universities to:

- Better analyze hazards
- Develop mitigation actions responsive to those hazards
- Link prioritized mitigation actions to the comprehensive array of programs, policies and funding mechanisms available to support implementation
- Outline an implementation strategy with responsibilities and deadlines clearly delineated

At Dewberry, our mitigation planners provide clients with technical mitigation planning support and facilitation—we do the heavy lifting—so stakeholders can focus their local knowledge and imagination toward developing a comprehensive, practical mitigation program.

Our record of FEMA conditionally approved, governmentally adopted mitigation plans is unsurpassed by any other firm.

Technical Training

Dewberry engineers, planners, and GIS experts rank among the most requested EMI-certified hazard mitigation instructors in the country. Whether at EMI or teaching G-level FEMA courses at the state or local level, we excel in helping clients with "Out-of-the-Box" EMI courses, customized material or "Just-In-Time-Training" to respond to local, regional, or state needs.

We are nimble in our delivery of training because we developed many of FEMA's technical mitigation courses and the accompanying documents such as Residential Retrofitting, Coastal Construction, and various versions of the Benefit-Cost Analysis training.

We lead in distance learning training delivery, providing many courses to audiences via WebEx and other media. We also have a full-service training suite at our Fairfax, Virginia, headquarters, which has been used for FEMA WebEx training and topical technical charrettes.