

Services Offered:

- Mitigation Plan Development and Updates
- Risk Assessment and Vulnerability Analysis
- Mitigation Strategy Development and Alternative Analysis
- Grant Application Development
- Program Implementation Assistance
- Hazard Mitigation Project Management
- Mitigation Training and Outreach



Hazard Mitigation Services

Floods, hurricanes, earthquakes, wildfires, and tornados. Hazard mitigation is at the core of the public service mission, as it seeks to permanently eliminate or reduce the risks of hazards to life and property. Hazard mitigation is one component of the comprehensive emergency management cycle, and is the one component that can lead to safer, more resilient communities.

Michael Baker International's vision is to empower clients to develop comprehensive and stable mitigation program capabilities. We offer expertise that spans the full range of mitigation services in pre-disaster and post-disaster environments. Michael Baker International's mitigation capabilities are listed below.

Mitigation Planning.

The Disaster Mitigation Act of 2000 requires states and communities to become more resilient by developing comprehensive mitigation plans as a condition for receiving federal assistance under the Robert T. Stafford Disaster Relief and Emergency Assistance Act. State plans must be updated every three years, and local plans must be updated every five years.

Michael Baker International has helped support public-sector clients in meeting this requirement by developing and updating hazard mitigation plans that meet the Federal Emergency Management Agency's (FEMA) planning criteria. In addition to developing and writing the technical portions of the plan, we help clients with:

- Stakeholder identification
- Interagency coordination
- Public outreach
- Meeting facilitation
- Planning process documentation

Michael Baker International can upgrade state mitigation plans so they meet FEMA's Enhanced Plan requirements. Enhanced Plan status entitles a state to an increase in post-disaster Hazard Mitigation Grant Program funds. We can also upgrade local mitigation plans so they meet Community Rating System standards, thereby reducing the flood insurance premiums paid by residents.

Risk Assessment & Vulnerability Analysis.

Knowing which, where, and how hazards affect an area is very important. We can perform a wide variety of risk assessments and vulnerability analyses, for a single structure or for an entire community. Michael Baker International's capabilities include:

- Hazard identification and mapping
- Asset inventory
- Applied geographic information system (GIS) analysis
- Vulnerability assessment

Hazus is a nationally applicable standardized methodology that contains models for estimating potential losses from earthquakes, floods, and hurricanes. Hazus uses GIS technology to estimate physical, economic, and social impacts of disasters. Michael Baker International is more than proficient in the use of Hazus — we even helped to develop the software!

Mitigation Strategy Development and Alternative Analysis.

Selecting the right mitigation option is as important as understanding your hazards. We have the expertise to assist public- and private-sector entities to develop mitigation strategies for hazard-prone areas as part of a mitigation plan or as an independent effort. Examples of mitigation strategies with which Michael Baker International can assist include:

- Hazard mitigation plans
- Acquisition and relocation projects
- Building retrofits
- Stormwater systems
- Wildfire mitigation systems
- Warning systems
- Safe-room projects

To develop comprehensive mitigation strategies and alternatives, it may be necessary to undertake preliminary design of alternatives or conduct studies to model the effects of the hazard on the mitigation activity. We can complete any necessary designs and conduct all appropriate modeling of the hazards. To obtain FEMA mitigation grant funding, it is necessary to determine the mitigation activity's cost-effectiveness. Michael Baker International is proficient in using FEMA's benefit-cost analysis program for preliminary reviews and detailed project submittals.

Grant Application Development.

Once a mitigation activity has been identified and has been determined to be cost-effective, a comprehensive and competitive grant project application must be completed if agency funding is sought. Michael Baker International's staff has extensive experience in preparing hazard mitigation project applications for FEMA and other mitigation program funding, including the Hazard Mitigation Grant Program (Section 404), Flood Mitigation Assistance, Pre-Disaster Mitigation, Severe Repetitive Loss Program, Repetitive Flood Claims, and Section 406 (FEMA Public Assistance) programs.

Project Implementation. If a mitigation project is funded, we can provide the full scope of services to implement it. Michael Baker International's services include:

- Environmental permitting
- Engineering and architectural design
- Engineering and construction management
- Project management

Program Implementation Assistance.

In today's economic climate, states and communities may not have the resources to implement a comprehensive mitigation program—especially after a disaster has occurred. Michael Baker International can supplement state and local mitigation programs in a variety of ways:

- Providing technical assistance, mitigation training, and outreach, including the development of web-based outreach
- Supplementing mitigation staff in joint field offices and emergency operations centers
- Assisting in the administration of the Hazard Mitigation Grant Program or pre-disaster mitigation programs
- Assisting communities in preparing mitigation grant applications
- Developing data for benefit-cost analyses, including recovery mapping and studies and the collection of high-water marks
- Designing information management, GIS, and information technology solutions for mitigation program administration
- Developing programmatic standard operating procedures, review checklists, and processes
- Providing mitigation program review for mitigation plan and Emergency Management Accreditation Program compliance
- Assisting in conducting substantial damage determinations

Michael Baker International can provide these and other hazard mitigation-related services on an ongoing or as-needed basis.

Mitigation Training and Outreach.

Michael Baker International's training programs span the full range of mitigation issues and can be tailored to clients' needs. Experienced staff is prepared to offer training in areas such as:

- Mitigation plan development and update
- Hazard mitigation project development
- GIS and Hazus
- Benefit-cost analysis
- Association of State Floodplain Managers' No Adverse Impact Initiative
- Long-term recovery, using Michael Baker International's exclusive Patchwork Quilt process
- Development of effective state mitigation programs
- Substantial damage determinations
- Hazard-related exercise development and execution

Let Michael Baker International be your mitigation partner in protecting the lives and property of your citizens, improving resiliency of your critical infrastructure, and improving the economic health of your communities.

