

How to Truncate the Life Cycle of Emergency & Disaster Preparedness, Response & Recovery

SAME Savannah Annual Program Review

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Panelists



Gina Hill, P.E.
Owner and President
G.M. Hill Engineering

- 30+ years of professional experience as a structural engineer and program manager.
- Has provided design packages, structural analysis, preparation of design specifications, studies, site investigations, building condition assessments, and reports for vertical infrastructure.
- Extensive experience with design of educational facilities, churches, commercial facilities, private residences, and local, state, and federal government facilities for civilian and defense agencies throughout the US.



Catherine Clinch
President, Federal Services
Tidal Basin Group

- 30+ years of experience in business operations, program management, and strategic development across the consulting, engineering, and disaster management fields.
- Leads strategic growth and operational efforts crucial to supporting disaster response, recovery, and programs within civilian and DoD/military federal government sectors.
- Drives innovative solutions in emergency logistics, temporary housing, disaster response, debris management, and complex large-scale federal program oversight.



Carlos J. Castillo
DHS/FEMA Market Lead
Tidal Basin Group

- 40+ years of leadership experience in emergency and disaster management across county, national, federal, and international levels, as well as non-profit organizations.
- Retired from Miami-Dade County, FL after 26 years of service as Emergency Management Director and Assistant Fire Chief, having managed major disasters including wildfires, airplane crashes, and over a dozen hurricanes.
- Served as FEMA Assistant Administrator for Recovery and Deputy Administrator for Resilience.



Joseph Williams, P.E.
Federal Program Manager
Michael Baker International

- 24+ years of experience as a senior civil engineer, project manager, and department manager
- Provides design expertise and leadership for projects related to disaster recovery
- Worked at NAVFAC SE for 10+ years prior to joining Michael Baker. Served on the NAVFAC SE Disaster Assessment Team at NSA Panama City following Hurricane Michael.



TIDAL BASIN®



Trusted experts in emergency management
& resilience



Partner-driven, results-focused program delivery



All-hazards mitigation & pre-event strategies



Scalable support for rapid response
& technical aid



Expertise in uniting federal/state funding (FEMA,
HUD, DoT, etc.)

We believe that everyone has the right
to achieve their full potential.

With a team that cares passionately
about changing the world for the better.

Transforming and empowering
communities, making them stronger.

Looking beyond the obvious,
creating new opportunities.

Listening, understanding, never
giving up.

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A leading innovator in engineering, consulting and technology services, including design, planning, architectural, environmental, construction and program management, addressing challenges to support infrastructure resilience—solving some of the world’s most complex challenges posed by our changing world.



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85
Years of
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#27
2025 ENR Top 500
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70+
Countries in Which
We’ve Worked

20 YEARS

Building Better Together

GMHILL



Award-winning design & construction firm



Small, woman-owned business based in Jacksonville, FL



Serves public sector clients nationwide, including disaster response & recovery



Offers architecture, engineering and construction services



Focused on client missions and community impact

Disaster Life Cycle

Mitigation: Avoid or mitigate disasters before they happen

Preparedness: Get ready for a disaster before it happens

Response: Act during and immediately after a disaster to save lives, protect property and meet basic human needs

Recovery: Restore the community to its pre-disaster state



Who is Involved?

Government Agencies

- Develop policies, coordinate plans, lead response & recovery (e.g., FEMA, EPA, HHS)
- Provide funding, training and disaster assistance programs

Private Sector

- Conduct risk assessments and business continuity planning
- Supply critical goods, services and infrastructure support
- Contribute to recovery through funding and logistics

Nonprofit Organizations

- Advocate for preparedness and policy change
- Deliver emergency aid (e.g., Red Cross, VOAD)
- Support long-term recovery and community rebuilding



Disaster Preparedness & Mitigation

*Without complex preparedness,
you will not have a complex response.*



Complexity & Impact of Disasters

Response and Recovery Operations must address a multitude of demands.

Agent-generated demands

Response-generated demands by individuals, organizations, and communities

Normalcy-generated demands

Mitigation-generated demands

Preparedness-generated demands

Emergency Management Tools

Risk Assessments

Used to identify vulnerabilities to climate-related hazards such as floods, hurricanes, wildfires, and extreme heat. These assessments inform adaptation strategies.

Planning and Preparedness

Establish evacuation routes, shelters, early warning systems, and communication protocols. Establishing prepositioned response and recovery contracts.

Community Engagement

Emergency managers work with residents and visitors, businesses, and organizations to raise awareness about climate risks, promote preparedness measures, and foster community resilience.

Infrastructure Resilience

Emergency management agencies collaborate with government agencies, utilities, and infrastructure providers to enhance the resilience of critical infrastructure systems.

Response and Recovery

Emergency management professionals coordinate response and recovery efforts to save lives and protect property.

Policy Development

Advocating for policies that promote climate adaptation and resilience at the local, state, and national levels is imperative. Adoption of modern building codes & standards (IBC, ASCE 7, etc.) DRRA, BRIC

Emergency Management Tools

Installation Centric

Risk Assessments

- Real Property Inventory
- Utility Capacity / Vulnerability
- What is High Value / Mission Critical?
- What is not needed?
- Strategic Supplies (PPE, Generators, Water, etc.)

Planning and Preparedness

- Prioritize Real Property; plan accordingly
- Regional planning (MIRR, etc)
- Black Start / Training Exercises
- Restocking / Vendor Supply Plans
- Business/Operations Continuity

Community Engagement

- Develop/Integrate Plans Regionally (MIRR, etc)
- Training Exercises
- Identify stakeholders, develop communications plans
- Identify contractual stakeholders (FEMA, IGSA, etc)

Infrastructure Resilience

- Design & Construction – Hardening, etc.
- Identify goals: build back, build to code, build to future?
- Consider pre-emptive demo – clear trees, remove unusable buildings, etc.

Response and Recovery

- Debris / Contaminant Removal
- Hazard Abatement
- Infrastructure Assessments
- Security
- Emergency Power
- Design & Construction
- Business /Operations Continuity

Policy Development

- Contract Vehicles – BPA/Schedules, MATOC, IGSA, OTA, etc.
- Building Codes / UFCs
- Permit Requirements
- Construction Means & Methods (PEMB, Modular, etc)

Enhancing Preparedness

Regional vs Installation preparedness plans

Wargaming approach

Digital modeling to drive Disaster-Informed Value Engineering (VE)

Pre-positioned response and recovery contracts

Preemptive selection for demolition of buildings that are past useful life, vacant, or pose a potential hazard during a severe weather event (Miami-Dade County Best Practice)

Disaster Strikes



Michael Baker
INTERNATIONAL



GMHILL

Disaster Response

*Your response will be as complex
as your preparedness.*



FEMA Community Lifelines

Community Lifeline	Description
Safety and Security	Law enforcement, fire, SAR, emergency management
Food, water, shelter	Access to food, water, shelter, sanitation
Health and Medical	Medical care, EMS, disease control, patient transport
Energy (power & fuel)	Power grid, fuel, energy system continuity
Communications	911, alerts, Internet, radio, telecom
Transportation	Roads, air & seaports, transit for people & goods
Hazardous Materials	CBRN threats, hazmat containment & response

Disaster Response

1. Assess

- Quantify damage
- Usability for critical infrastructure
- Condition of FEMA Community Lifelines

2. Immediate Response

- Debris / Contaminant Removal
- Stabilize Infrastructure / Mission
- Security
- Emergency Power

3. Public Assistance

- Community Engagement
- FEMA Hazard Mitigation Grants (404/406/SDE)
- Individual Assistance (housing)



Disaster Preparedness & Response Example



Florida Division of Emergency Mgmt.

Multiple Statewide and Emergency Contracts

Under multiple State MSA and standby contracts with FDEM, the Tidal Basin Team has provided professional consulting and disaster management support in the following areas:

- Strategic Advisory Consulting
- Program & Policy Design (SHRC Pilot Program)
- Project Management Office
- Standard Operating Procedure Development
- Training & Tabletop Exercises
- Technical Assistance
- Damage Assessments
- EOC Staff Augmentation
- Outreach & Public Relations
- Disaster Response & Logistics
- Haul & Install Missions
- Contact Center Support
- Phoenix OneCase Tech
- Disaster Case Management
- Intake & Eligibility Reviews
- Cost Tracking & Recovery
- FEMA IA, PA, & HMGP
- Alternative Mitigation Opportunities
- Additional Eligible Damages Identification
- Long-Term Recovery Planning Guidance
- Appeals & Audits
- Construction Management
- Final Inspections
- Project Closeouts
- After Action Reports
- Reporting & Data Mgmt.

Project Highlights:

- **\$847M+** Combined Contract Value for the following projects:
 - COVID-19 Vaccine Program
 - Debris Management (MSA)
 - Hurricanes Ian, Idalia, Helene, and Milton Non-Congregate Sheltering (NCS) Programs, Sheltering & Temporary Housing, Starlink Satellite Communication Deployments, and Substantial Damage Program
- **237.7K+** Total Applicants Supported
- **218K+** Vaccine Appointments Scheduled through the Call Center
- **19.7K+** Total NCS & SHRC Applicants
- **9.2K+** Eligible NCS & SHRC Applications Confirmed
- **70K+** Damage Assessments Completed
- **20M+** Contact Center Calls Handled
- **800+** Mobile Satellite Communication Stations Deployed and Maintained

Disaster Recovery Example



Hawaii Emergency Management Agency *HI-EMA*

Maui Wildfires

Supporting recovery efforts for the devastating 2023 Maui wildfire, which destroyed 2,200 structures, displaced nearly 12,000 residents, and left 7,000 in temporary shelters. The disaster also caused significant cultural and economic losses. We are providing the following services:

- Strategic Advisory Consulting
- State and County Emergency Operations Center (EOC) Staff Augmentation
- Mobile Satellite Communications
- Contact Center Support
- Phoenix OneCase Tech
- Disaster Case Management
- Applicant Intake & Eligibility Reviews
- Personal Property Debris Removal (PPDR) and Right of Entry (RoE) Services
- Non-Congregate Sheltering (NCS)
- FEMA IA, PA and HMGP Program Management
- Cost Tracking & Recovery
- Long-Term Recovery & Housing Guidance and Implementation
- Construction Management

Project Highlights:

- **\$23.9M+** Contract Value
- **11.1K+** Total Survivors Supported
- **4.3K+** Eligible Applicants Confirmed
- **3K+** Survivors Transitioned from Temporary to More Stable, Longer-Term Housing
- **2.1K+** Right-of-Entry (RoE) Applications Processed for Residential and Commercial Properties
- **400** Unit Interim Housing Development Construction Oversight (MBI + TB)
- **72** Mobile Satellite Communication Stations Deployed and Maintained

Disaster Housing Response Example



FEMA LogHouse

2024 Iowa Floods and Severe Storms

Provided Iowa communities affected by the 2024 floods and severe storms with direct temporary housing assistance. MLU was tasked with constructing three group sites to accommodate the impacted disaster survivors. The following site land development, permitting, and construction services were performed in under 60 days for all three sites.

- Full site development including:
 - Surveys, planning, design/engineering, and permitting
- Full site construction including:
 - Underground utilities, roadways, mobile home pads, tornado shelters, and common areas
- Project and construction management



Group Site Project Highlights

- **16th Street Site, Hawarden, IA** 10 units completed in 35 days
- **North Y Site, Spencer, IA** 20 units completed in 47 days
- **Rock Ridge Site, Rock Valley, IA** 66 units completed in 57 days

Disaster Recovery

*Long-term recovery sets the stage
for future preparedness.*



Disaster Recovery

Design & Construction

Who is recovering?

Replacing or upgrading?

Adding new facilities?

After-Action Reporting

How do you inform the next generation of Preparedness Plans?



Disaster Recovery Project Examples

NSB Kings Bay - Repairs Following Hurricane Elsa

- Tornado damage impacted three essential buildings
- Disrupted maintenance operations for nuclear submarines

NAWS China Lake – Recovery Initiatives Post-Earthquake

- Two significant earthquakes occurred in 2019
- Extensive damage to buildings, equipment, airfield, and overall infrastructure
- Several MILCON projects established to repair and restore laboratory and RDT&E capabilities

Tyndall AFB – Reconstruction After Hurricane Michael

- Struck by a Category 5 hurricane with 160-mph winds
- A comprehensive five-year, \$3B+ Reconstruction Program
- Michael Baker served as Program & Design Integrator for reconstruction effort



Disaster Recovery – Project Considerations

NSB Kings Bay Hurricane Elsa Building Repairs

- Site situated within a controlled zone
- Restoring various building systems while ensuring that unaffected areas remain occupied

NAWS China Lake Earthquake Recovery Initiatives

- Adherence to explosive safety standards
- Strict seismic criteria
- Involvement of multiple stakeholders

Tyndall AFB Hurricane Michael Reconstruction Efforts

- Integration of design and construction for 120 new buildings and 34 renovation projects
- Utilizing BIM to create a 4D digital twin model
- Coordinating rebuilding activities with USAF mission requirements to avoid conflicts



Disaster Recovery Facilities

Humanitarian Assistance Projects

- Located throughout the Caribbean
- Areas of exposure to high wind and seismic events
- Disaster relief warehouses, shelters, and operational facilities
- Helps to speed relief/recovery efforts during the next event



Open Discussion

How do we truncate the life-cycle of preparedness, response, and recovery?



Thank you.

