FEMA Grants Overview: Upcoming Opportunities with BRIC, HMGP, & FMA

Simplifying the Complexities

Keren Bolter
Climate Compact VA Workshop
8/18/2021
How can your VA process/results be leveraged to support funding its implementation?

• Before starting your VA, envision of how it will come to life
• Tailor the process to ensure that it will produce “FEMA-ready” projects
  • How can you make sure that the VA will ID eligible (cost effective) projects?
  • What information/processes will support any FEMA application?
  • What kinds of data should you already be collecting?
ROI: The Business Case for Resilience

Solution Oriented Approach

Prevention Oriented Approach

Stop the Cycle!
Our Approach to Funding

**FEMA- Ready:** Arcadis uses methodologies approved by Federal agencies so that the results of analyses may be used for future grant funding pursuits.

**PROVEN TRACK RECORD**

- **$5B** in funding for resiliency projects over the last seven years
- **>20 years** Experience and accumulated capacity and knowledge in Federal, state, and local grants.
FEMA Funding in 2021/2022

• $3.46B in Hazard Mitigation Grant Program (HMGP) for COVID
  • $188M for FL

• Flood Mitigation Assistance (FMA) (focus of repetitive loss)
  • $160M announced for 2021
  • 117 of 236 applications awarded $200M in 2020
    • 26 states did not submit

• $1B in Building Resilient Infrastructure and Communities (BRIC) (formerly PDM)
  • NOFO released Mon - $919k is for competitive projects ($50k cap)
2021 Flood Mitigation Assistance (FMA)

$160 MILLION
TOTAL AVAILABLE FMA FUNDING

Allocated up to
$10 MILLION
Project Scoping (previously Advance Assistance)
$300-900k cap

Allocated up to
$70 MILLION
Community Flood Mitigation Projects
$30M cap

At least
$80 MILLION

Technical Assistance
Flood Hazard Mitigation Planning
Individual Flood Mitigation Projects
BRIC FY2020 Lessons Learned

• For the $500M in Federal funding available, FEMA received 991 sub-applications requesting nearly $4 billion in funding – competition is high!

• Most projects required adjustments to meet technical scoring criteria: nature-based solutions, increasing level of protection

• **Phasing** enables greater flexibility for projects that still need to go through full design and construction

• **Starting early is critical to developing a competitive application**
# BRIC Scoring Criteria

**Technical Evaluation Criteria**
Technical points will be awarded as “all or nothing”.

**Qualitative Criteria**
Rated on how well they address the prompts
Rated on a scale

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Minimally</th>
<th>Partially</th>
<th>Mostly</th>
<th>Entirely</th>
<th>Exceeds</th>
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<tbody>
<tr>
<td>Technical Criteria</td>
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<td>7</td>
<td>14</td>
<td>21</td>
<td>28</td>
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<td>Qualitative Criteria</td>
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= Total score
200 pts
Technical Criteria

- **20** Infrastructure Project
- **15** Mitigating risk to one or more lifelines
- **10** Incorporation of nature-based solutions
- **20** Applicant (i.e. State) has mandatory building code adoption
- **15** Subapplicant has BCEGS Rating of 1 to 5*
- **10** Application generated from previous Advanced Assistance Award
- **5** Increased non-federal cost share
- **5** Designation as a small impoverished community

*Building Code Effectiveness Grading Schedule
Qualitative Criteria

- Risk Reduction/Resiliency Effectiveness: 35
- Future Conditions: 15
- Implementation Measures: 15
- Population Impacted: 15
- Outreach Activities: 5
- Leveraging Partners: 15
Community Lifelines

Lifelines are services communities use. Lifeline-focused mitigations projects could improve a wide variety of public, private and non-profit organizations.
Eligibility and Competitiveness

Projects Must:

- Be cost-effective
- Reduce/eliminate risk and damage from future natural hazards
- Meet latest two consensus codes
- Meet all environmental and historic preservation (EHP) requirements
- Align with Hazard Mitigation Plan
22 Awards went to 10 States
- 12 Flood Control Projects
- 4 Utility and Infrastructure Protection
- 2 Relocation Projects

1 of each of the following:
- Elevation (Roadway)
- Floodproofing
- Saferoom/Shelter
- Wildfire

- 568 applications were competitive
  - The rest were “allocations”
- 241 out of 293 Capability & Capacity Building applications were awarded
- 22 mitigation projects
  - 490 not selected out of 512
### BRIC in FL

<table>
<thead>
<tr>
<th>Mitigation Projects Submitted:</th>
<th>23</th>
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<tbody>
<tr>
<td>Awards:</td>
<td>6</td>
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<tr>
<td>Amount Requested:</td>
<td>$12.26M</td>
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<tr>
<td>Ineligible:</td>
<td>6</td>
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</table>

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Status</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Building Codes Capacity Building</td>
<td>Selected</td>
<td>$56,381</td>
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<tr>
<td>Pasco County - Indigo Ln - Acquisition Demolition</td>
<td>Selected</td>
<td>$94,574</td>
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<tr>
<td>Pasco County - Fasano Regional Shelter Hardening</td>
<td>Selected</td>
<td>$55,900</td>
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<tr>
<td>Public Works Generator Mitigation Project - Animal Care Protective Services</td>
<td>Selected</td>
<td>$361,251</td>
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<tr>
<td>Pasco County - Senior Center Generator</td>
<td>Selected</td>
<td>$262,500</td>
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<tr>
<td>Pasco County - Green Key Drainage</td>
<td>Not Selected</td>
<td>$1,460,935</td>
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<tr>
<td>Pasco County - Thomas Blvd Acquisition</td>
<td>Not Selected</td>
<td>$212,651</td>
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<td>City of Panama City Emergency Response Center Codes Plus</td>
<td>Not Selected</td>
<td>$1,030,188</td>
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<td>City of Tamarac Water Treatment Plant Hardening</td>
<td>Not Selected</td>
<td>$967,874</td>
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<td>Charlotte County Leachate Plant Generator Project - LPGP</td>
<td>Not Selected</td>
<td>$1,022,819</td>
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<tr>
<td>City of Homestead Power Grid Resiliency</td>
<td>Not Selected</td>
<td>$5,207,401</td>
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<tr>
<td>K-8 School Central Basin</td>
<td>Not Selected</td>
<td>$5,268,000</td>
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<tr>
<td>Human Services Generator Project</td>
<td>Not Selected</td>
<td>$598,500</td>
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<tr>
<td>City of Port St. Lucie Flood Control Structures</td>
<td>Not Selected</td>
<td>$3,915,941</td>
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<td>Miami-Dade PHCD Ingram Terrace Comprehensive Residential Mitigation</td>
<td>Not Selected</td>
<td>$794,632</td>
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<td>Monroe County Twin Lakes Subdivision Road Mitigation Project</td>
<td>Ineligible</td>
<td>$7,312,399</td>
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<tr>
<td>Data Center Generators</td>
<td>Ineligible</td>
<td>$367,500</td>
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<td>City of Miami Beach Maurice Gibb Memorial Park Seawall Mitigation Project</td>
<td>Ineligible</td>
<td>$2,045,432</td>
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<td>SFWMD Building Flood Resiliency at Critical Basins in South Florida: C-9 Basin</td>
<td>Ineligible</td>
<td>$64,824,136</td>
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<td>Miami-Dade Countywide Continuity of Operations Energy Resilience Project</td>
<td>Ineligible</td>
<td>$28,980,001</td>
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<tr>
<td>SFWMD Building Flood Resiliency at Critical Basins in South Florida: C-7 Basin</td>
<td>Ineligible</td>
<td>$62,295,863</td>
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<tr>
<td>Monroe County Sands Subdivision Road Mitigation Project</td>
<td>Withdrawn</td>
<td>$8,659,364</td>
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## 2020 BRIC Competitive Awards

<table>
<thead>
<tr>
<th>State</th>
<th>Title</th>
<th>Project/Hazard Category</th>
<th>Award</th>
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<tbody>
<tr>
<td>MA</td>
<td>Central Street Bridge Improvements and Sawmill Brook Restoration, Culvert Retrofit &amp; Restoration</td>
<td>Drainage Improvements</td>
<td>$4,484,673</td>
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<tr>
<td>CA</td>
<td>City of Rohnert Park Copeland Creek Detention Basin</td>
<td>Drainage Improvements</td>
<td>$6,000,000</td>
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<tr>
<td>DC</td>
<td>Blue/Green Storm Water Flood Mitigation in Southwest Washington, DC</td>
<td>Green Infrastructure/N-B Solutions</td>
<td>$18,612,178</td>
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<tr>
<td>CA</td>
<td>Central San Walnut Creek / Grayson Creek Levee Project</td>
<td>Levee or Other Large Flood Protection Structure</td>
<td>$2,456,231</td>
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<tr>
<td>WA</td>
<td>North Shore Levee West</td>
<td>Levee or Other Large Flood Protection Structure</td>
<td>$34,650,746</td>
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<tr>
<td>NY</td>
<td>Upper Minkel Dam Decommissioning &amp; Riparian Corridor Restoration</td>
<td>Levee or Other Large Flood Protection Structure</td>
<td>$1,050,000</td>
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<tr>
<td>NJ</td>
<td>New Jersey DEP Hudson River Floodwall Infrastructure and Resilience Park</td>
<td>Levee or Other Large Flood Protection Structure</td>
<td>$22,517,000</td>
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<tr>
<td>DC</td>
<td>Saint Elizabeths Hospital &amp; DC Emergency Communications Microgrid Project</td>
<td>Microgrid</td>
<td>$19,948,639</td>
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<tr>
<td>NC</td>
<td>Lumberton Loop: A City-Wide Plan for Flood Mitigation, Restoration, and Recreation in Lumberton, NC</td>
<td>Other Planning/Assessment</td>
<td>$1,927,179</td>
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<tr>
<td>KY</td>
<td>Frankfort Mero Flood Pump Station (CSO) Renewal and Relocation</td>
<td>Pump Station</td>
<td>$10,543,961</td>
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<tr>
<td>NC</td>
<td>Hickory Snow Creek Pump Station Relocation and Hardening</td>
<td>Pump Station</td>
<td>$3,540,939</td>
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<tr>
<td>NJ</td>
<td>New Jersey Meadowlands East Riser Ditch Pumping Station and Channel Improvements</td>
<td>Pump Station</td>
<td>$36,000,000</td>
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<tr>
<td>WA</td>
<td>Westport Vertical Evacuation Structure</td>
<td>Safe Room</td>
<td>$13,735,823</td>
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<td>NY</td>
<td>NYC Parks - Tottenville Shoreline Protection Project</td>
<td>Streambank/Shoreline Restoration/Stabilization</td>
<td>$19,822,053</td>
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<td>NC</td>
<td>Town of Duck Living Shoreline and NC 12 Resiliency Project</td>
<td>Streambank/Shoreline Restoration/Stabilization</td>
<td>$1,849,197</td>
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<td>NC</td>
<td>Town of Princeville</td>
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<td>$10,968,390</td>
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<td>CA</td>
<td>City of Menlo Park, Menlo Park SAFER Bay Project</td>
<td>Unknown/Other</td>
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<td>MD</td>
<td>Middle Branch Resiliency Initiative - Stage I FINAL</td>
<td>Unknown/Other</td>
<td>$31,924,193</td>
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<td>NC</td>
<td>Hickory Northeast Wastewater Treatment Facility Hardening and Stream Restoration Project</td>
<td>Utility Protection</td>
<td>$5,407,285</td>
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<td>WA</td>
<td>Kittitas County Washington Waste Transfer Station Flood Mitigation</td>
<td>Utility Protection</td>
<td>$12,654,940</td>
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<td>SC</td>
<td>City of Columbia Resilient Water Supply Project</td>
<td>Utility Protection</td>
<td>$32,635,784</td>
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<tr>
<td>CA</td>
<td>Wildfire Resilient Sonoma County - Nature-based Mitigation to Adapt in an Era of Megafires</td>
<td>Wildfire</td>
<td>$36,983,752</td>
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</tbody>
</table>
• Don’t Stress! If something is missing, they don’t just throw out the application, there will be an RFI and they will request info or ask Qs
• Social Determinants of Emergency Preparedness –
  • Show how you will prioritize and operationalize Equity

• AVOID any language on required maintenance, wear & tear repair/replacement work
• Focus on what will happen if a particular project isn’t done & increasing level of protection

Eligible Projects

Flood Protection
• Acquisition, floodproofing, retrofits, elevating structure
• Flood control, floodwater storage and diversion, stream restoration, stormwater management
• Wetland restoration/creation

Other Hazards
• Power outages, wind, fire, redundancy & more!

Planning - Capability & Capacity Building
• Water Master Plan, Vulnerability Assessment, Asset Management
• Project Scoping and Application Development

Infrastructure Mitigation
• WTP upgrades
• Generators
• SCADA
• Booster and lift stations
FMA/BRIC Mitigation Grants Timeline

- NOFO posted to Grants.gov – August 9, 2021
- Eligibility and Technical Reviews – February – May 2022
- Selections – Summer 2022
- Period of performance – 36/48 months from Award Acceptance
- Period of Performance 36/48 Months

Logistics

- How do you apply?
  - FEMA Go
- Is there cost share?
  - Yes – 25% or more
Technical Due Diligence

Common technical justification required for funding applications

- Flow modeling
- Scope of work
- Detailed cost estimate
- Alternatives analysis
- Design drawings
- Permits
- Future condition projections
- Benefit-cost analysis
- Economic impact analysis
- Monitoring plans
- Environmental and Historic Preservation review

Technical backup can also be used to develop robust value propositions!
Benefit Cost Analysis

FEMA’s BCA Toolkit 6.0

• Modelled or Historic Losses
• Ex. Flooding – FIS, SW Modelling, or high-water marks, repair invoices
• All about damages avoided before and after mitigation for various return periods

At a cost of $70 million, the WR-RR levee will provide nearly $119 million in benefits over its lifespan, protecting:

- NEARLY 600 BUILDINGS
- OVER 600 PEOPLE
- NEARLY 400 WORKERS

Over its projected 50-year lifespan, the project will prevent an estimated:

- $358 MILLION IN PROPERTY DAMAGE
- $242 MILLION HUMAN HEALTH IMPACTS & LOST PRODUCTIVITY
- $22 MILLION IN RELOCATION COSTS
- ~$15 MILLION IN DAMAGE TO PARK & UNIVERSITY FACILITIES

The levee's added-value benefits include:

- FLOOD INSURANCE SAVINGS
- PROPERTY VALUE INCREASES
- ECONOMIC DEVELOPMENT
- DIVERSE PARTNERSHIPS
- COMMUNITY REVITALIZATION
- EDUCATION AND AWARENESS
Study #1
Water Treatment Plant Floodwall and Stream Restoration Project in VA
Floodwall Project in VA

Floodwall Specifics
- 2k’ long & ~16ft high
- Concrete floodwall – 1ft above BFE
- $8.7M Fed Share – Selected
- Michael in 2018 caused lagoon submersion, equipment damage, and plant shutdown from 11ft of water that took 30 hours to recede
- Recent floods - higher watermark
Study #2
Miami-Dade Water and Sewer Department
HMGP Case Study
Miami-Dade Water and Sewer Department
HMGP Case Study

What Does WASD Do?

• Operates and maintains two critical assets – Pump Station 1 and 2 that serve over 800k residents combined.

What Are the Risks to the Facilities?

• Wind, surge, stormwater, power loss, and subsurface intrusion into the wastewater collection system.

Project Funding Allocations:

• Applied and awarded funding and awarded under the Hurricane Irma (DR-4377) HMGP Allocation
• Phase 1 (~$ 1.7M) – Hydrology and Hydraulic Study, Design Engineering, and Permitting
• Phase 2 (~$18.4M) – Construction

FEMA Awards Miami-Dade County Over $1.7 Million for a Wastewater Transmission System, Utility Protective Mitigation Project

Release date: June 14, 2019
Release Number: R4 DR-4337-FL NR 287

Orlando, Fla. – FEMA is awarding Miami-Dade County a $1,780,624.50 Hazard Mitigation grant to fund the initial phase 1 of design and engineering a project to harden Pump Station 1 and Pump Station 2 located at 390 NW North River Drive, Miami, FL 33128 and 1075 Biscayne Boulevard, Miami, FL 33132, respectively.

These stations provide wastewater conveyance services to a direct service population of approximately 811,722 people.

Source: Miami-Dade Water and Sewer Department
Study #3
Portsmouth Olde Town Stormwater Pump Station

[FMA FY19 // $7.4M Fed Share *Selected*]
Portsmouth Olde Town Stormwater Pump Station

- Stormwater Pump Station Construction and Stormwater Improvements
- Protection of RL and SRL Properties

Left: Independent measures to protect structures from flooding
Important Resources

Funding Nature-Based Solutions with FEMA Grants


FEMA BRIC/FMA Webinar Series

• Only 1000 spots so register ASAP
# 2021 BRIC and FMA Programs Webinar Series

<table>
<thead>
<tr>
<th>Date and Time</th>
<th>Webinar Topic</th>
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<tbody>
<tr>
<td>August 16 2-3:30 pm ET</td>
<td>BRIC and FMA FY 2020 Data and Trends</td>
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<tr>
<td>August 18 2-3:30 pm ET</td>
<td>Where Equity Fits into the BRIC and FMA Program Design and Community Resilience</td>
</tr>
<tr>
<td>August 24 2-3:30 pm ET</td>
<td>Severe Repetitive Loss/Repetitive Loss Mitigation Priorities</td>
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<tr>
<td>August 26 2-3:30 pm ET</td>
<td>BRIC and FMA FY 2021 NOFO Webinar #2</td>
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<tr>
<td>September 8 2-3:30 pm ET</td>
<td>BRIC FY 2021 NOFO Technical and Qualitative Criteria</td>
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<tr>
<td>September 13 2-3:30 pm ET</td>
<td>BRIC and FMA FY 2021 NOFO Tribal Webinar</td>
</tr>
<tr>
<td>October 13 2-3:30 pm ET</td>
<td>Federal Agency Roundtable</td>
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If you miss them, the recordings get posted on the FEMA YouTube page

[https://www.youtube.com/user/FEMA](https://www.youtube.com/user/FEMA)

You can view the 8/11 recorded presentation in its entirety here: [https://fema.connectsolutions.com/pjduehkrmuaf/](https://fema.connectsolutions.com/pjduehkrmuaf/)
Thank You

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