

# **Pennsylvania Emergency Management Agency**

## **Mitigation, Insurance & Resilient Communities (MIRC) Office**

### **Flood Mitigation: Grant Assistance Webinar**



**Dickson City** —Lackawanna  
County 2021,  
*The Times Tribune*

June 28, 2021  
12:00-12:35



### **Topics:**

***FEMA Building Resilient Infrastructure & Communities Grant***  
***Tom Hughes, PA State Hazard Mitigation Officer***

# Building Resilient Infrastructure & Communities

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## **BRIC Grant's Intent:**

Building Resilient Infrastructure and Communities (BRIC) will support states, local communities, tribes and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards. BRIC is a new FEMA pre-disaster hazard mitigation program that replaces the existing Pre-Disaster Mitigation (PDM) program.

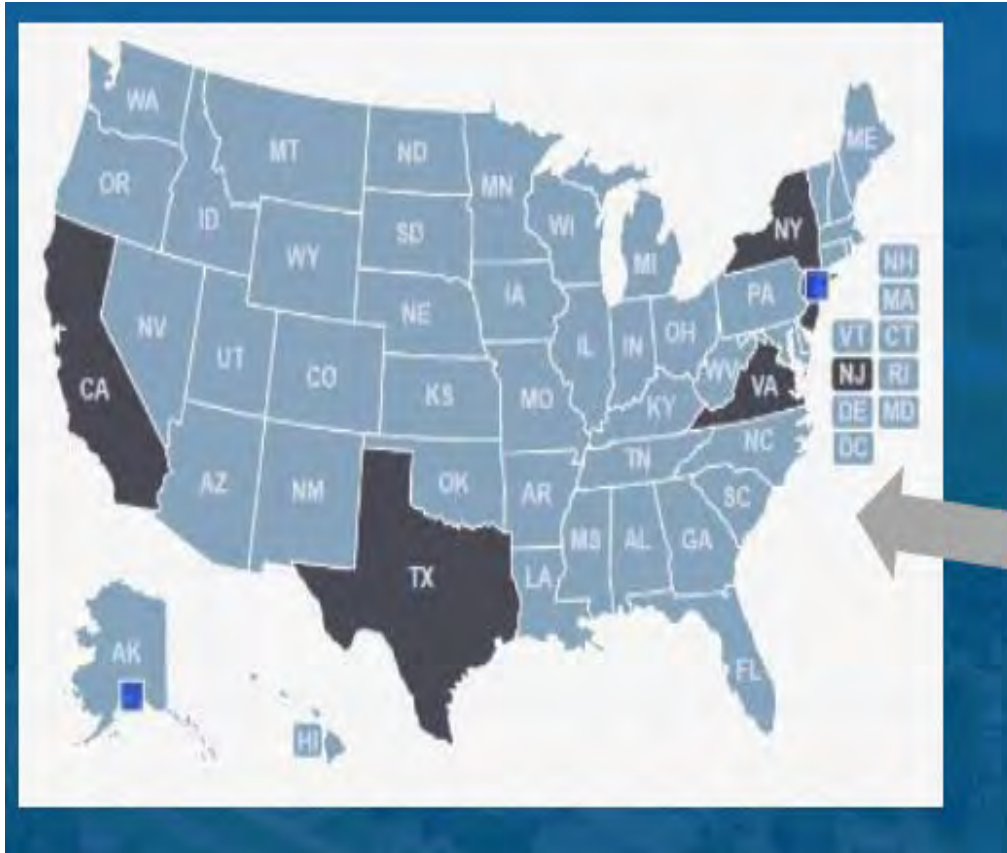
The BRIC program guiding principles are supporting communities through capability and capacity-building; encouraging and enabling innovation; promoting partnerships; enabling large projects; maintaining flexibility; and providing consistency



## BRIC FY 2020 Priorities

- Encourage public infrastructure projects
- Increase projects that mitigate risk to one or more lifelines
- Promote projects that incorporate nature-based solutions
- Incentivize adoption and enforcement of modern building codes

# BRI C Large-Scale Projects



- 25 different states and territories submitted projects with a combined Federal Share of \$50 million or greater
- 5 states submitted projects with over \$200 million Federal Share (California, New Jersey, New York, Texas, and Virginia)

# FY 2020 BRIC Competitive Selections: Competition

 \$17.17 million average federal share



2 small and impoverished community projects

**22 Projects Selected**

18 projects include nature-based solutions



All infrastructure projects protecting lifelines

All projects selected came from applicants that had mandatory statewide adopted building codes



**FEMA**

# BRIC Capability- and Capacity-Building Activities

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# BRI C Eligible Activities

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## Expanded Eligibility Includes:

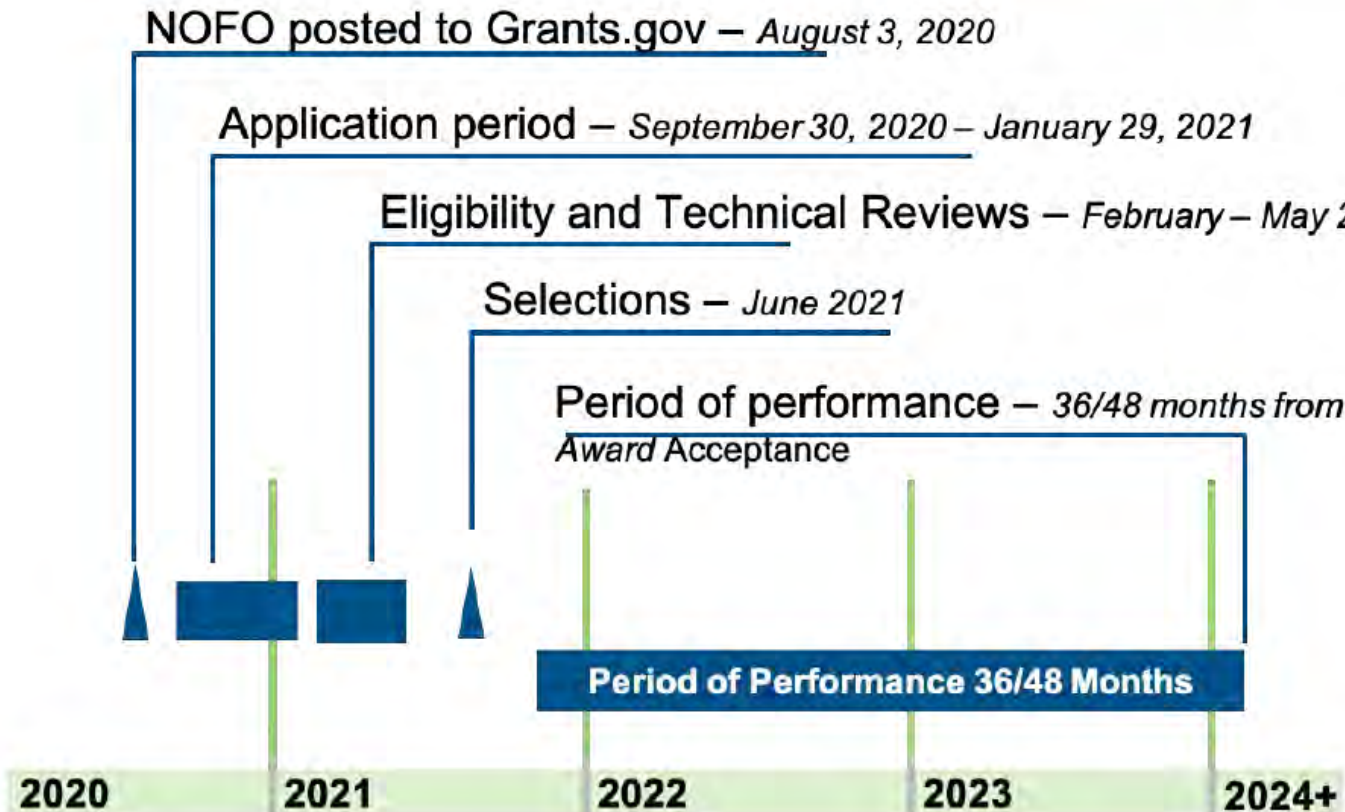
- Project Scoping
- Building Code Activities
- Pre-award costs
- Additional activities for wildfire and wind implementation (DRRA Section 1205)
- Earthquake early warning (DRRA Section 1233)

## Project Must:

- Be Cost Effective
- Reduce/Eliminate risk and damage from future natural hazards
- Meet latest 2 consensus codes (i.e., 2015 or 2018 international building code)
- Additional activities for wildfire and wind implementation (DRRA Section 1205)
- Align with Hazard Mitigation Plan
- Meet all environmental and historic preservation requirements

# Non-Disaster FEDERAL GRANT TIMELINE

## Non-Disaster Mitigation Grants Application Cycle and Funding Deadlines



Application period opens on **September 30, 2020**.

Submission deadline for applications is **3:00 PM ET on January 29, 2021**.

System-related issues must be addressed by **3:00 PM ET on January 27, 2021**.

Pre-Award Selection Notice: **Anticipated in June 2021**

Period of Performance:

Start Date: **When the recipient accepts the Award**

End Date: All projects are **36 months** from the date of the Award EXCEPT for FMA Community Flood Mitigation Projects which are **48 months** from the Award date



# 2020 Commonwealth of PA Timelines

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## Deadlines:

- Letter of Interest (one-pager) due by **October 15, 2020, 1600 hours EST;**
- Entry into the FEMA Grants Opportunity once Letter of Interest is approved by PEMA;
- Cut-off of Eligible and COMPLETE applications in the FEMA GO system is **November 18, 1700 hours EST;**
- State Hazard Mitigation Assistance Application Team will meet **December 7-18, 2020;** and
- Based on State Team points, prioritization of State Team and FEMA requirements, enter state FMA and BRIC applications in system by **Saturday, January 15, 2021.**
- FEMA Deadline for all applications by state is **January 29, 2021.**

## PEMA Letter of Interest found here:

<https://www.pema.pa.gov/Mitigation/Grants-Projects/Non-Disaster-Forms/Pages/default.aspx> Form 01 Non-Disaster Grant Letter of Interest

# Building Resilient Infrastructure and Communities (BRIC)

## Guiding Principles

-  Support Community Capability & Capacity Building
-  Encourage and Enable Innovation
-  Promote Partnerships
-  Enable Large Infrastructure Projects
-  Maintain Flexibility
-  Provide Consistency



**FEMA**

## Supports FEMA's Strategic Plan

- 1 Build a Culture of Preparedness
- 2 Ready the Nation for Catastrophic Disasters
- 3 Reduce the Complexity of FEMA

# BRIC FY 2021 NOFO and 2020 Project Selections

FY 2020 Cycle: FEMA announced BRIC sections in July 2021



FY 2021 Cycle: FEMA will publish FY 2021 BRIC NOFO this Summer



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# BRIC Funding

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President Biden announced **\$1 billion** will be directed to BRIC



- **State/Territory Allocation**
  - All 50 states, the District of Columbia, and U.S. territories may apply under the State/Territory Allocation
- **Tribal Set-Aside**
  - All Tribal governments (federally recognized) may apply under the Tribal Set-Aside
- **National Competition for Mitigation Projects**



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# BRIC Uses of Assistance

Uses of Assistance	State/Territory Allocations	Tribal Set-Aside	National Competition for Mitigation Projects
Management Costs	✓	✓	✓
Capability- and Capacity-Building Activities	✓	✓	
Mitigation Projects	✓	✓	✓

# BRIC Applicant and Subapplicant Eligibility

## Who is eligible for funding?

- Applicants:**
- ✓ All 50 States
  - ✓ U.S. territories
  - ✓ Federally recognized Indian Tribal Governments
  - ✓ District of Columbia



- Subapplicants:**
- ✓ Local Governments
  - ✓ Indian Tribal Governments
  - ✓ State Agencies
  - ✓ Tribal Agencies



## Future Desired Impacts

The Federal Insurance and Mitigation Administration (FIMA) has two overarching principles that influence all goals and objectives:

- Deliver our programs with **equity**
- Incorporate **future conditions** in all of our work



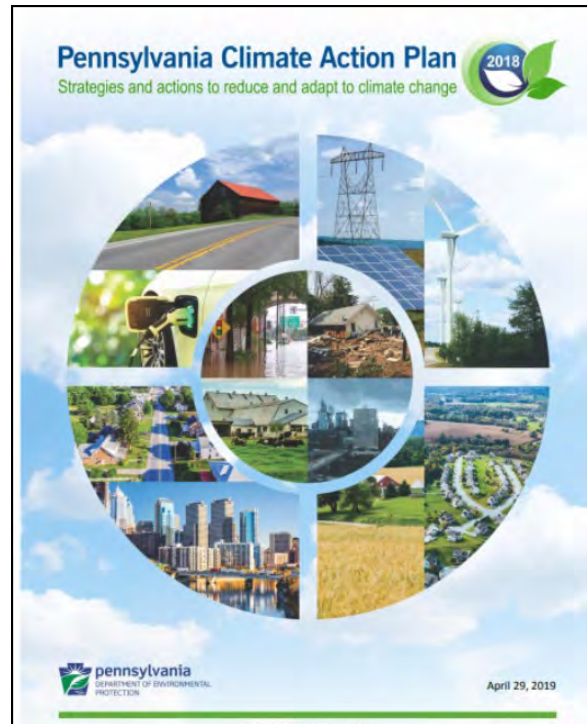
Executive Order on Tackling the Climate Crisis  
at Home and Abroad



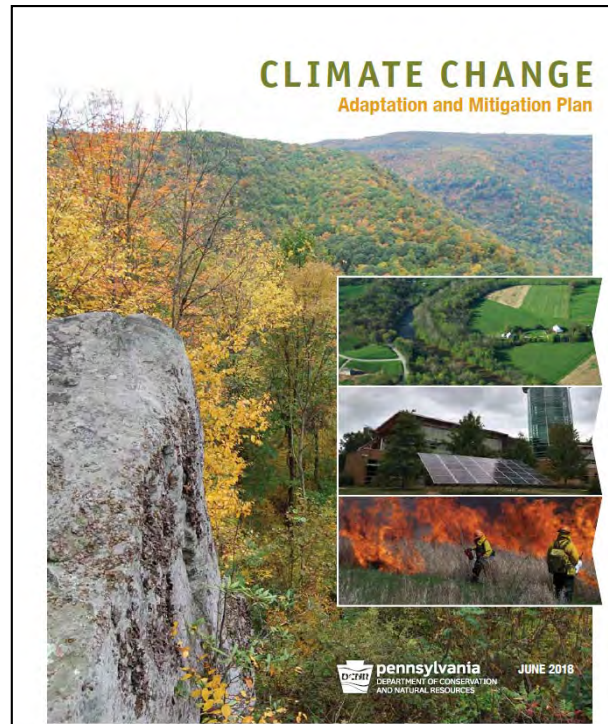
Executive Order On Advancing Racial Equity  
and Support for Underserved Communities  
Through the Federal Government



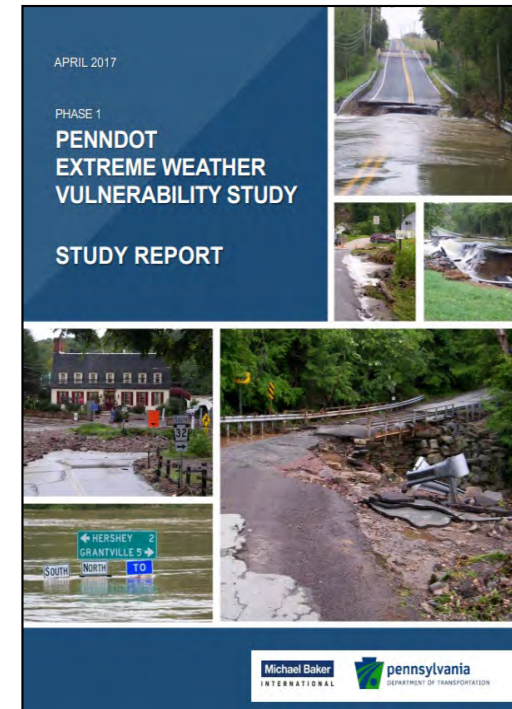
# Climate Adaptation/Future Conditions



<https://www.dep.pa.gov/Citizens/Climate/Pages/PA-Climate-Action-Plan.aspx>



[http://elibrary.dcnr.pa.gov/GetDocument?docId=1743769&DocName=Climate\\_Change\\_Adaptation\\_Plan\\_Final\\_Aug2018.pdf](http://elibrary.dcnr.pa.gov/GetDocument?docId=1743769&DocName=Climate_Change_Adaptation_Plan_Final_Aug2018.pdf)



<http://s3.amazonaws.com/tmp-map/climate/doc/StudyReport-PaVulnerabilityStudy-ver040317.pdf>



# FEMA Community Lifelines

## Definition

A lifeline enables the continuous operation of **critical business and government functions** and is essential to **human health and safety** or **economic security**.

## Purpose

Root Cause Analysis

Interdependencies

Prioritization

Ease of Communication

## Assessing

Status → What?

Impact → So What?

Actions → Now What?

Limiting Factors → What's the Gap?

## Stabilization

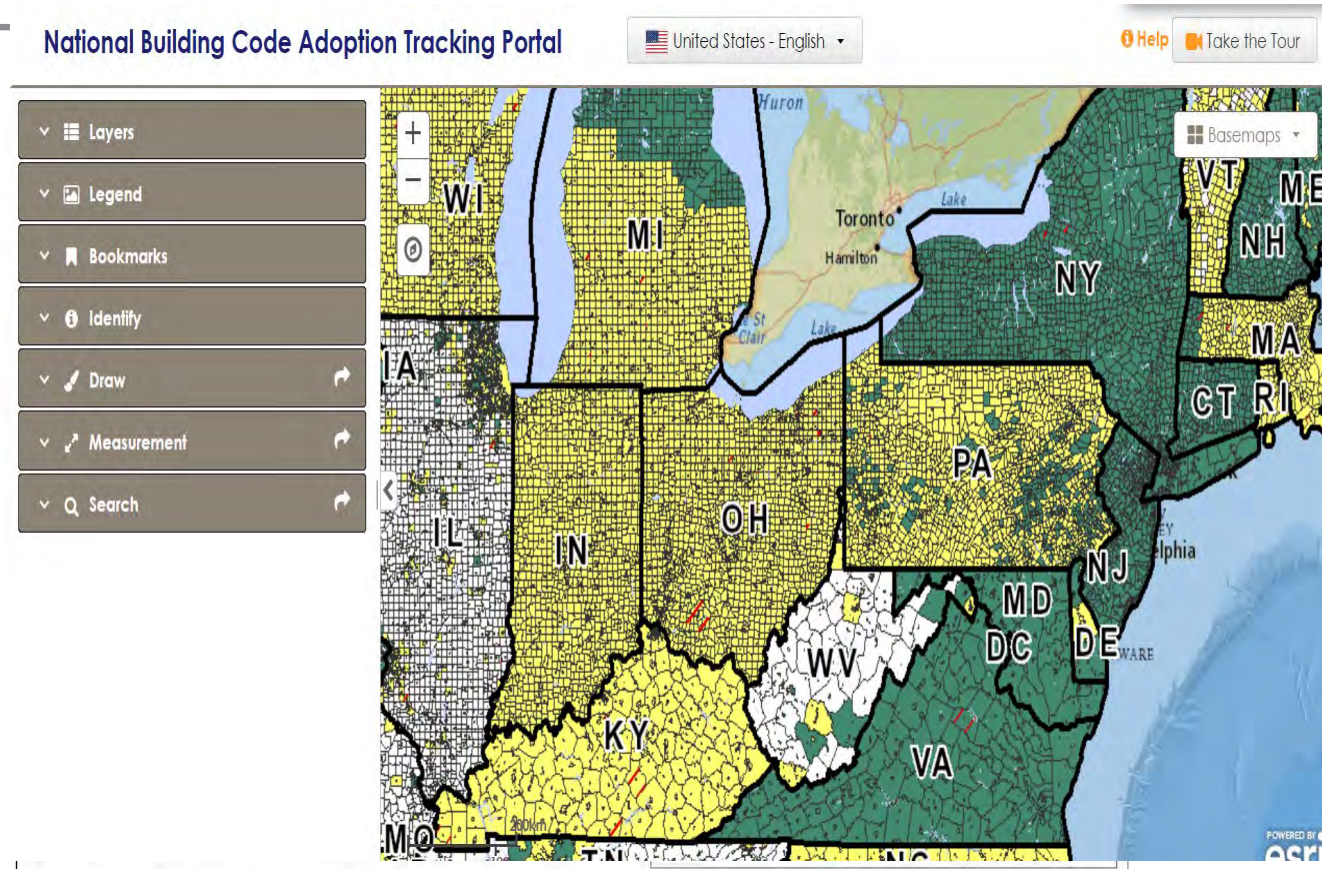
Occurs when basic lifeline services or capabilities are provided to survivors (may be temporary solutions)

COMPONENTS of Lifelines



# Local Building Codes and Enforcement

Building codes are the cornerstone of a resilient community, but less than 35 percent of communities have adopted the latest, most up-to-date hazard-resistant codes.



One way to check as a quick reference guide regarding local Mandatory building code adoption is to check out this online portal at:  
[https://www.fema.gov/emergency-managers/risk-management/building-science/bcat?utm\\_source=gd&utm\\_medium=bcatlp](https://www.fema.gov/emergency-managers/risk-management/building-science/bcat?utm_source=gd&utm_medium=bcatlp)

# FY 2020 BRIC – Technical Criteria



Infrastructure project



Mitigating risk to one or more lifelines



Incorporation of nature-based solutions



Applicant has mandatory building code adoption requirement  
(2015 or 2018 versions of International Building Code and International Residential Code)



Subapplicant has Building Code Effectiveness Grading Schedule Rating of 1 to 5



Application generated from a previous FEMA Hazard Mitigation Assistance Advance Assistance award



Increased non-federal cost share



Designation as a small impoverished community



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# FY 2020 BRIC – Qualitative Criteria

**35**  
points



**Risk Reduction /  
Resiliency Effectiveness**

**15**  
points



**Future  
Conditions**

**15**  
points



**Implementation  
Measures**

**15**  
points



**Population  
Impacted**

**5**  
points



**Outreach  
Activities**

**15**  
points



**Leveraging  
Partners**



# BRIC – Direct Technical Assistance

Non-financial Direct Technical Assistance will be provided to selected communities to support the mitigation outcomes listed below:



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# FY 2020 BRIC Submissions and Selections

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- **\$500 million** was made available for funding
- FEMA received requests for **\$3.6 billion** in applications, with total proposed project costs exceeding **\$5.49 billion**
- **991** subapplications were submitted
- **406** of the subapplications have been selected for further review
- Total project costs for selections exceed **\$1.18 billion**
- 53 states and territories applied and all had selections
- 40 tribes applied and 38 were selected for further review



<https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities/fy2020-subapplication-status>



# BRIC – Phased Projects

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- ❑ Phased projects are where FEMA provides funding for complex mitigation projects to Applicants to allow them to develop all the technical and environmental information, including design, engineering studies, and permitting, before issuing a full construction approval
- ❑ Phasing projects allow monies to flow and good mitigation projects to be developed and evaluated without a community assuming risk of not being funded, which can be especially helpful for smaller communities.

# BRI C – Go/No-Go Milestones

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**New --- The applicant, in coordination with the Applicant, must identify a series of Go/No-Go milestones throughout the work schedule for mitigation activities that FEMA will review and approve**





# FY 2020 BRIC Selections: Project Types

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## Project Types Selected:

- 12 Flood Control
- 4 Utility and Infrastructure Protection
- 2 Relocation
- 1 Elevation (Roadway)
- 1 Floodproofing
- 1 Saferoom/Shelter
- 1 Wildfire

12 Phased Projects

## Top 5 project types total project costs:

1. Flood Control = \$550 million
2. Utility/Infrastructure Protection = \$91.3 million
3. Wildfire Management = \$49.3 million
4. Relocation = \$21.9 million
5. Saferoom/shelters = \$15.2 million



## FY 2020 BRIC Selections: Small Impoverished Communities

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- FEMA received 98 small impoverished communities subapplications
- FEMA **selected 46 project subapplications** totaling **\$39.2 million** in project costs
- For FY 2020, the number of small impoverished selections represents about **46.9%** of all small impoverished subapplications submitted, and **11.3%** of all subapplications selected

### Small Impoverished Communities:

- Population < 3,000
- Residents with an average per capita annual income not exceeding 80 percent of the national per capita income



### **FEMA may prioritize Direct Technical Assistance for communities that:**

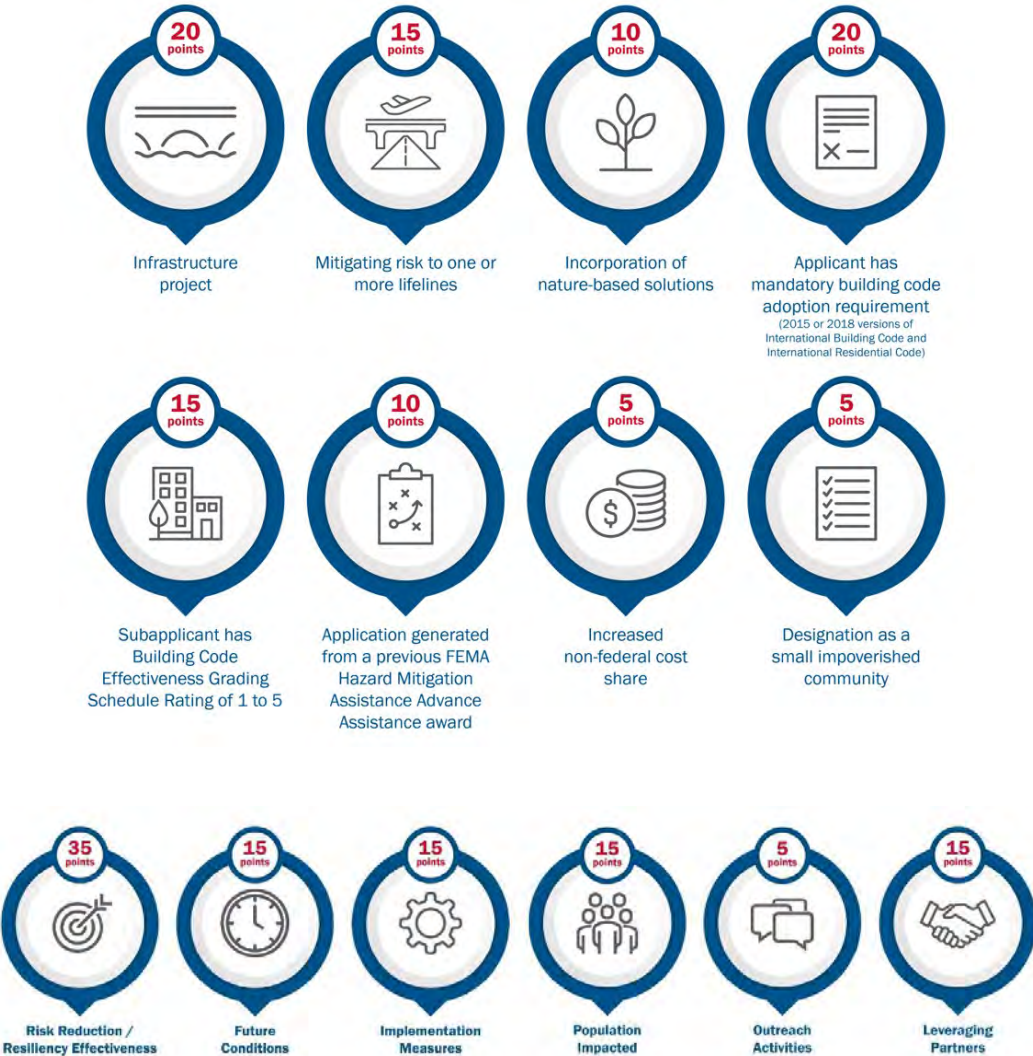
- Have not received a project award under the PDM, FMA, or the HMGP within the past 5 years.
- Have not received an Advance Assistance award under the PDM, FMA, or HMGP within the past 5 years
- Are Tribal entities
- Are small impoverished communities
- Have demonstrated a compelling need (e.g., have significant social vulnerability, multiple major disaster declarations within the past 5 years, etc.)

# FY 2020 BRIC Selections: Best Practices

- Ensure eligibility requirements are met
- Maximize State/Territory Allocation and Tribal Set-Aside
- Review Technical and Qualitative Criteria

**Projects Must:**

- Be cost-effective
- Reduce/eliminate risk and damage from future natural hazards
- Meet latest two consensus codes
- Align with Hazard Mitigation Plan
- Meet all environmental and historic preservation (EHP) requirements



# 2021 BRIC and FMA Programs Webinar Series

Date and Time	Webinar Topic
July 28 2-3:30 pm ET	Climate Change, Future Conditions, and Nature-based Solutions
August 4 2-3:30 pm ET	BRIC and FMA FY 2020 Data and Trends
August 11 4-5:30 pm ET	BRIC and FMA FY 2021 NOFO Webinar #1
August 18 2-3:30 pm ET	Where Equity Fits into the BRIC and FMA Program Design and Community Resilience
August 24 2-3:30 pm ET	Severe Repetitive Loss/Repetitive Loss Mitigation Priorities
August 26 2-3:30 pm ET	BRIC and FMA FY 2021 NOFO Webinar #2
September 8 2-3:30 pm ET	BRIC FY 2021 NOFO Technical and Qualitative Criteria
September 13 2-3:30 pm ET	BRIC and FMA FY 2021 NOFO Tribal Webinar
October 13 2-3:30 pm ET	Federal Agency Roundtable



# Mitigation Action Portfolio



[https://www.fema.gov/sites/default/files/2020-08/fema\\_mitigation-action-portfolio-support-document\\_08-01-2020\\_0.pdf](https://www.fema.gov/sites/default/files/2020-08/fema_mitigation-action-portfolio-support-document_08-01-2020_0.pdf) 107 Pages!

The Pennsylvania Silver Jackets Team's  
**Mitigation Success Story**  
**Factsheets**

October 2015



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# Cost Share Requirements

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- **Generally, FEMA will pay 75% of all eligible costs**
- **Building Resilient Infrastructure & Communities (BRIC)**
  - FEMA will pay 90% for small impoverished communities
  - FEMA will pay up to 100% for management costs
- **Flood Mitigation Assistance**
  - FEMA will pay up to 90% for Repetitive Loss Properties
  - FEMA will pay up to 100% for Severe Repetitive Lost Properties
- **Hazard Mitigation Grant Program (HMGP)**
  - The State will usually pick up the 25% non-federal share
  - **Require a Letter of Intent or Interest (on PEMA webpage)**





# 2021 BRIC and FMA Programs Webinars and Office Hours

- Application Pitfalls Webinars:
  - September 1 and 20
- FEMA's Hazard Mitigation Assistance Division will hold office hours for the BRIC and FMA Programs on the following dates:
  - October 19, 21, 26, and 28



Full schedule of BRIC and FMA Programs Webinars available at:  
<https://www.fema.gov/grants/mitigation/2021-building-resilient-infrastructure-and-communities-and-flood-mitigation-assistance-programs>



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# BRIC Program Support Materials

- [BRIC Website](#)
- [FY 2020 BRIC Notice of Funding Opportunity](#)
- [BRIC Technical Criteria](#)
- [BRIC Qualitative Criteria](#)
- [Mitigation Action Portfolio](#)
- [BRIC Building Code Activities](#)
- [BRIC Partnership Activities](#)
- [BRIC Project Scoping Activities](#)
- [BRIC Mitigation Planning Activities](#)
- [BRIC Direct Technical Assistance](#)
- [HMA Cost Share Guide](#)

## Other Resources:

- Community Lifelines Implementation Toolkit: <https://www.fema.gov/media-library/assets/documents/177222>
- Benefit Cost Analysis (BCA): [www.fema.gov/benefit-cost-analysis](http://www.fema.gov/benefit-cost-analysis)
- Hazard Mitigation Planning: <https://www.fema.gov/hazard-mitigation-planning>
- ISO Mitigation – Building Codes <https://www.isomitigation.com/bcegs/>
- FEMA GO – [www.fema.gov/grants/guidance-tools/fema-go](http://www.fema.gov/grants/guidance-tools/fema-go)
- Sign up for BRIC and HMA Updates: [https://public.govdelivery.com/accounts/USDHSFEMA/subscriber/new?topic\\_id=USDHSFEMA\\_477](https://public.govdelivery.com/accounts/USDHSFEMA/subscriber/new?topic_id=USDHSFEMA_477)



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Thank you!



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- 
- Provide detailed BCANarratives, separate SOWNarratives, and extensive use of Comment and Justification Boxes
    - This additional context on proposed projects that help organize your thoughts and allows the reviewers to understand your project.
    - Added details, explanations, and references also allow reviewers to provide more pointed and actionable guidance in RFIs.
  - Attach Excel file and source data used to generate BCAs
    - Reviewers validate inputs and methodology used – and make corrections!
  - Use clear and consistent naming conventions for attachment
    - Simple steps like providing easy-to-follow in-text references to additional materials help streamline the review process and allow reviewers to quickly establish a detailed understanding of proposed projects.

- 
- If engineering / surveying documents are available, include stamped/sealed reports, figures or data (LFEs, pre- and post-mitigation BFEs)
  - If preliminary design is not started, clearly describe performance-based design measures/level of protection desired (project ABC will be designed to IAW XYZ industry standard, upon completion of project ABC the benefiting area will be protect to XYZ)
  - Consider project scoping or phasing for larger complex projects
  - Program priorities and NOFO



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Larger, more complex projects → more information needed and harder to organize

### Missing Information

- No H&H study or incomplete study details
- No description or documentation to support level of effectiveness
- No clear description of upstream/downstream impacts

### Inaccurate Information

- Recurrence intervals
- Lowest Floor Elevations

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## Incorrect Application of Data

- Referencing NFIP Data
  - Interpretation and use of FIS data to determine water surface elevation, streambed elevation, lowest floor elevation and discharge amounts calculated incorrectly
  - Inaccurate or inexact use of claims data (e.g., using claims data from outside the project area)
- Determining Recurrence Intervals (RIs)
  - Conflating elapsed-years since last-known hazard occurrence with RI
  - Lack of familiarity with event-specific guidance that could be used to determine RI
  - Use the unknown frequency calculator if RIs are unknown
- Sea Level Rise (SLR)
  - Included in BCA, but not design elevations

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## Incorrect Application of Data

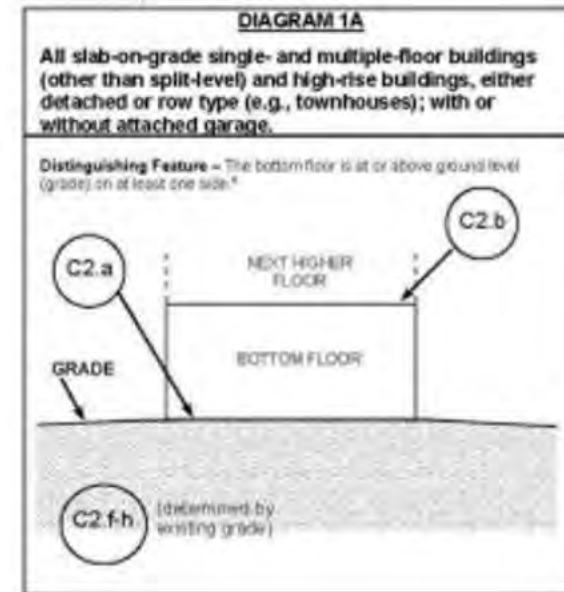
- Calculation of service populations, service benefits, or loss of function
  - Not accounting for other operational critical facilities.
  - Providing values without explanation or documentation.
  - Referencing district-wide operating budget for a single-facility retrofit.
  - Conflating loss of service benefit types (e.g., including wastewater loss of service benefits for stormwater system project)
- Unclear descriptions of the intended level of protection
- Connection between hazard and project not made (rainfall data for coastal protection)



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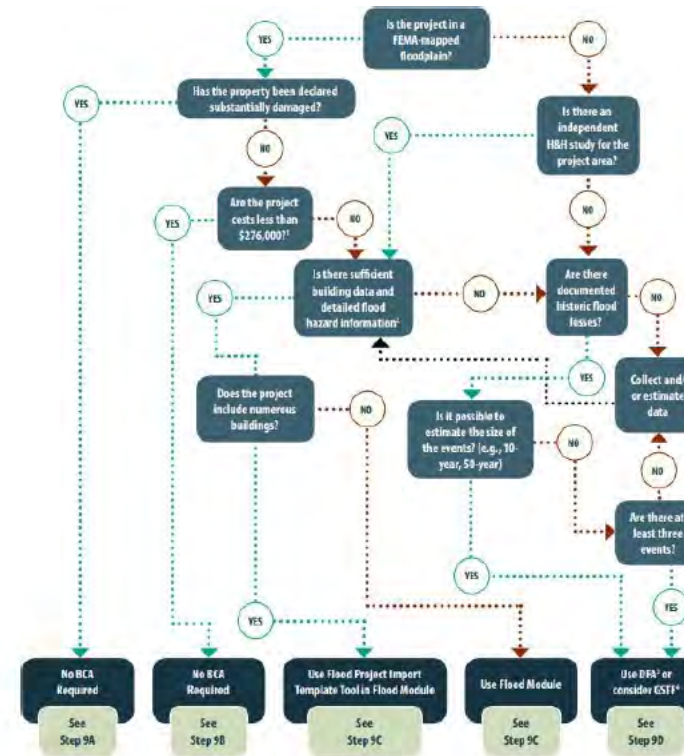
# ***BCA & Technical Feasibility Challenges***

- Acquisitions
  - Fair market value not equal to building replacement value
- Elevations
  - Lack of documentation of elevation feasibility for older buildings
  - Incorrect, inconsistent, or incongruent calculation of feet to raise LFE
  - Incorrect LFE (frequently pulling wrong figure from Elevation Certificates)
- Mitigation Reconstruction
  - \$150,000 fed share cap for construction
  - Structure sizes more than 10% greater than the original structure



# Precalculated Benefit Challenges

- Structures outside the SFHA
- Substantial Damage not Substantiated
- Aggregating benefits
- Unsupported Location Factors
- Inflation
- Federal Share (Mitigation Reconstruction)



Federal Emergency Management Agency



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# FEMA Eligible Projects under FMA

- Property Acquisition and Structure Demolition
- Property Acquisition and Structure Relocation
- Structure Elevation
- Mitigation Reconstruction
- Dry Floodproofing of Historic Residential Structures
- Dry Floodproofing of Non-residential Structures
- Localized Flood Reduction Projects
- Structural Retrofitting of Existing Buildings
- Non-Structural Retrofitting of Existing Buildings & Facilities
- Infrastructure Retrofit
- Soil Stabilization
- Project Scoping – Individual Home and Community Flood

