



FEMA

October 6, 2022

## INFORMATION

MEMORANDUM FOR: Building Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance (FMA) Grant Program Applicants and Subapplicants

FROM: Gerilee W. Bennett  
Deputy Director, Hazard Mitigation Assistance Division  
Mitigation Directorate  
Federal Insurance and Mitigation Administration

SUBJECT: **Alternative Cost-Effectiveness Methodology for Fiscal Year 2022 BRIC and FMA Application Cycle**

---

### I. Background and Purpose

Communities, especially underserved communities, have raised challenges with meeting the Benefit-Cost Analysis (BCA) requirement to access funding through our Hazard Mitigation Assistance (HMA) grant programs. The BCA is the method used to calculate the future risk reduction benefits of a hazard mitigation project and compares those benefits to its costs. The result is a Benefit-Cost Ratio (BCR), which considers a project to be cost-effective when the BCR is 1.0 or greater at a 7% discount rate, in accordance with Office of Management and Budget (OMB) Circular A-94, [Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs \(https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/a94/a094.pdf\)](https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/a94/a094.pdf). A discount rate is the interest rate used in calculating the present value of expected yearly benefits and costs.

While FEMA has taken great strides over the years to simplify the BCA requirement through the development of a toolkit and establishing pre-calculated benefits, communities still face challenges with demonstrating cost-effectiveness of their projects.

For the fiscal year (FY) 2022 Building Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance (FMA) grant program application cycle, FEMA is introducing an alternative cost-effectiveness methodology that will modify the threshold for mitigation projects to be considered cost-effective under limited conditions. A mitigation project may be considered cost-effective if, when using the 7% discount rate, the BCR is at least 0.75 or greater, and if at the 3% discount rate the BCR is at least 1.0 or greater, and the mitigation activity benefits disadvantaged communities, addresses climate change impacts, has hard to quantify benefits, and/or is subject to higher costs due to the use of low carbon building materials or compliance with the Federal Flood Risk Management Standard.

This alternative cost-effectiveness method allows FEMA to analyze the impacts of the rate differential from 7% to 3% and inform future decision-making. This approach also encourages the use of climate-informed science to make our communities safer and reduce disaster suffering.

This memorandum outlines the criteria under which applicants and subapplicants may use the alternative cost-effectiveness methodology and provides instructions for subapplication submissions.

## II. Scope and Applicability

The alternative cost-effectiveness methodology described in this memorandum is effective **only** for the FY 2022 application period for the BRIC and FMA grant programs that opened on September 30, 2022.

Applicants and subapplicants using this alternative cost-effectiveness methodology must also ensure that all other programmatic requirements outlined in the [Fiscal Year 2022 Notices of Funding Opportunities for Hazard Mitigation Assistance Grants | FEMA.gov](https://www.fema.gov/grants/mitigation/fy2022-nofo) (<https://www.fema.gov/grants/mitigation/fy2022-nofo>) are met.

## III. Alternative Cost-Effectiveness Methodology

Under the alternative methodology, FEMA will consider the project cost effective if **all three** of the following conditions are met:

1. The BCA generated at the 7% discount rate must be equal to or greater than a BCR of 0.75.
2. The BCA generated at the 3% discount rate must be equal to or greater than a BCR of 1.0.
3. The mitigation activity meets **at least ONE** of the following criteria:
  - a. The project primarily benefits disadvantaged communities that are marginalized, overburdened, and underserved. To demonstrate this criterion, the project must meet ONE of the following conditions:
    - i. Primarily benefits an area at the census tract level with a score of greater than or equal to 0.6 on the Centers for Disease Control and Prevention's (CDC) Social Vulnerability Index (SVI);
    - ii. Primarily benefits a geographic area within a tribal jurisdiction, or an Insular Area as defined by 48 U.S.C. § 1469a<sup>1</sup>; OR
    - iii. For BRIC only, primarily benefits an Economically Disadvantaged Rural Community (also known as a small impoverished community as defined in 42 U.S.C. § 5133(a)). Economically Disadvantaged Rural Community (EDRC) means a community of 3,000 or fewer individuals identified by the applicant that is economically disadvantaged, with residents having an average per capita annual income not exceeding 80 percent of the national per capita income, based on best available data.

---

<sup>1</sup> This citation was previously incorrect and has been updated. This document was re-signed on December 2, 2022. No other changes have been made to this memorandum. It remains in effect as of October 6, 2022.

- b. The project addresses a significant impact caused by climate change, such as more intense storms, increases in extreme rainfall, extreme temperatures, drought, prolonged wildfires, extreme flooding, and changes in sea levels. The subapplication should describe how the project will enhance climate adaptation and resilience, detail how the project is being responsive to the effects of climate change (such as sea level rise) and/or other future conditions (population/demographic/land use, etc.), and cite data sources, assumptions, and models.
- c. The project is subject to substantially higher costs due to incorporation of low-carbon materials or compliance with the Federal Flood Risk Management Standard. The subapplication should include cost estimates and a narrative description to explain the increased costs.
- d. The project provides significant benefits that are difficult to quantify or cannot be monetized and are not captured in FEMA's BCA toolkit. The subapplication should provide a narrative description of the benefits.

[Appendix 1](#) below illustrates how the alternative BCA methodology can be used to demonstrate cost effectiveness.

#### **IV. Subapplication Submission Requirements**

Applicants and subapplicants seeking to use the alternative BCA methodology must attach the following two files to their subapplication in FEMA Grants Outcomes (FEMA GO):

##### *1. BCA Toolkit Export File*

FEMA has updated the BCA toolkit to enable an additional BCR calculation using the 3% discount rate in the "Benefit-Cost Summary" screen. For subapplications with a BCR between 0.75 and 1.0 at the 7% discount rate, the toolkit user should click on the "analysis at 3%" button. If the analysis shows a BCR of at least 1.0 at the 3% discount rate, the subapplication may be eligible to use the alternative BCA methodology. The applicant/subapplicant should upload the exported BCA Toolkit file to the Cost Effectiveness section in FEMA GO. The export file should be labeled "Alternative BCA Methodology Export File."

##### *2. Alternative Cost-Effectiveness Methodology Narrative*

The subapplication must also include a second attachment in the Cost Effectiveness section of FEMA GO that provides a narrative description stating which additional criteria from Section III.3 above the mitigation project meets (i.e., the project benefits a disadvantaged community, addresses climate change, is subject to substantially higher costs, or provides benefits that are difficult to quantify). The attachment should be labeled "Alternative Cost-Effectiveness Methodology Narrative."

#### **V. Technical Assistance**

For questions about cost-effectiveness and FEMA's BCA software, contact the BCA Helpline 1-855-540-6744 or [BCHelpline@fema.dhs.gov](mailto:BCHelpline@fema.dhs.gov).

# Appendix 1

## Alternative Cost-Effectiveness Methodology Test

