

FEMA BRIC Application Best Practices and Recommendations

Environmental Defense Fund

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Abbreviations and Acronyms

BCA	Benefit-Cost Analysis
BCR	Benefit-Cost Ratio
BRIC	Building Resilient Infrastructure and Communities
BSEGS	Building Cost Effectiveness Grading Schedule
C&CB	Capability- and Capacity-Building
CRS	Community Rating System
CZMP	Coastal Zone Management Program
DCR	Department of Conservation and Recreation
EDF	Environmental Defense Fund
EHP	Environmental Planning and Historic Preservation
EIS	Environmental Impact Statement
ET	Eastern Time Zone
FEMA	Federal Emergency Management Agency
FIMA	Federal Insurance and Mitigation Administration
FMA	Flood Mitigation Assistance
FRM	Flood Risk Management
FY	Fiscal Year
HMA	Hazard Mitigation Assistance
HMGP	Hazard Mitigation Grant Program
HMP	Hazard Mitigation Plan
HQ	Headquarters
HUD	U.S. Department of Housing and Urban Development
JPA	Joint Powers Authority
MEMA	Maryland Emergency Management Agency
NbS	Nature-based Solution
NED	National Economic Development
NFIP	National Flood Insurance Program
NGO	Non-governmental Organization
NNBF	Natural and Nature-based Features
NOAA	National Oceanic and Atmospheric Administration
NOFO	Notice of Funding Opportunity
NTR	National Technical Review
OCZM	Office of Coastal Zone Management
O&M	Operations and Maintenance
PE	Professional Engineer
SHMO	State Hazard Mitigation Officer
SLR	Sea Level Rise
T&E	Threatened and Endangered species
TNC	The Nature Conservancy
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service

Cheat Sheet: Criteria for a Successful Proposal

The following summary of best practices is intended to assist applicants in successfully being awarded funds for Nature-based Solutions projects under the competitive Building Resilient Infrastructure and Communities grants program administered by the Federal Emergency Management Agency. These items are drawn from several sources including interviews with individuals that review/evaluate BRIC proposals and BRIC grant recipients that have prepared successful proposals in the recent past, as well as the experience of an Environmental Defense Fund consultant, AECOM, with extensive expertise in assisting both FEMA and applicant communities with the BRIC program.

General Recommendations

- **Start Early:** Begin preparing the proposal early to ensure there is enough time to develop a competitive subapplication. Know the difference between state and federal deadlines.
- **Ask for Help:** Consider requesting non-financial, direct technical assistance from FEMA to help your staff develop a BRIC application, build expertise to identify the best NbS to address a hazard or need, or craft and sustain a mitigation program. Work with your State to see if other resources are available to supplement your local capabilities.
- **Extra Points:** An application generated from a previous FEMA HMA Advance Assistance or Project Scoping award under C&CB will not only receive extra points but will also help communities to develop well-thought-out project applications.
- **Get Smart:** Attend BRIC Program Webinars and other training offered by FEMA regarding the BRIC program.
- **Engage the State:** Coordinate with your State Hazard Mitigation Officer to ensure that your proposed project aligns with state priorities and to confirm subapplication deadlines. Typically, state/territorial/tribal application periods close before the official BRIC program deadline.
- **Take the Long View:** In general, it is better to submit a mitigation project subapplication for a project that has already had some upfront work completed or has achieved some milestones (e.g., some permitting, some design, some Environmental Planning and Historic Preservation [EHP] coordination, etc.). Alternatively, consider putting forward a large project that is made up of separable pieces, each small and self-standing, but clearly part of a large, more valuable whole. The proposed project solution should be well thought-out with sufficient supporting data and documentation for review.
- **Hire a Pro:** Consider soliciting support to develop the proposal from an experienced consultant, particularly for the BCA. Reviewers can typically tell when a proposal has been prepared by an experienced professional versus not.
- **Show Support:** Request letters of support and letters of funding commitment from project partners to include with the application. Having strong partnerships gives projects a big leg up.
- **Be Ready for Questions:** FEMA will request more information for proposals rather than throwing out otherwise good subapplications.

Project and Subapplicant Eligibility

- **Make Sure Your Project is Eligible:** Is the project feasible and effective? Is the project a standalone, long-term solution (even if phased)? Is the project cost effective? Are building code criteria met? Does the project meet all EHP requirements?
- **Have A Local Hazard Mitigation Plan In Good Standing:** Subapplicants MUST have a local Hazard Mitigation Plan (HMP); not meeting this criterion is the fastest way to become ineligible. The proposed project must address the risk analysis in the HMP and align with community mitigation goals.
 - For greater likelihood of success, the project should also be included in any local Capital Improvement, Floodplain Management, and/or Comprehensive Plans to show whole community/system preparedness.
- **Reduce Natural Hazard Risks:** Projects need to mitigate natural hazards, not simply the risks to specific community lifelines. For instance, FEMA cannot build a new communications tower under the BRIC program, because it doesn't protect against a natural hazard.

- **Be Honest:** Put forward realistic timeframes to complete the project—it’s better to ask for more time upfront than for a time extension later. Timeframes do not impact eligibility, but subapplicants may be asked to provide more supporting information to justify the need and to show how associated risks will be mitigated.
- **Consider a Portfolio Approach:** State applicants should emphasize portfolio management and submit only strong BRIC candidates to the BRIC program. Other projects should be submitted to HMGP and FMA, as applicable.

Technical and Qualitative Criteria

- **Read the Answer Key:** Read the Technical and Qualitative Criteria for the BRIC Program. FEMA uses these as “answer keys” when selecting projects. Subapplicants should read the NOFO in full and watch the Webinar Series.
- **Focus on Scoring Points:** Craft your project proposal to align with the current FY Technical/Qualitative scoring criteria. Spend the most time on Technical/Qualitative categories with the greatest point values. Technical criteria points are awarded as “all or nothing,” while Qualitative criteria points are on a graded scale.
- **Building Codes and BSEGS are Critical:** While formally not a FEMA requirement, the most successful communities had adopted building codes in accordance with FEMA criteria and had Building Cost Effectiveness Grading Schedule (BSEGS) ratings of 5+.
- **Align with BRIC Priorities:** Projects should be aligned to FEMA’s BRIC Program Priorities, as defined in the NOFO for that FY (for example, for FY21: Infrastructure, Community Lifelines, Building Codes, Climate Resilience, Nature-based Solution, Equity).
- **Acknowledge and Address Project Risks:** Describe possible risk and mitigation strategies associated with meeting the proposed project cost and schedule. Reviewers should have a high level of confidence that the project will do what is intended and adequately mitigate known risks.
- **Consider Phasing the Project:** Phasing gives more flexibility for large-scale projects and projects still needing design. The C&CB category gives subapplicants a pathway to collect needed data to complete a future application (and receive points for having received a previous qualifying award).
- **Don’t Guess:** Technical claims made in the proposal must be accurate. FEMA uses a third-party review team to verify that proposed projects will be technically feasible and cost effective.
 - Typical technical documentation includes a scope of work, hydrologic/hydraulic modeling or other with/without project modeling, EHP reviews, permits, alternatives analysis, design drawings, cost estimate, economic impact analysis, and a benefit-cost assessment.
- **Leverage Third Party Data:** Use online data viewers and local/state/national datasets (such as those for sea level rise, land cover, social vulnerability, etc.) to help identify and quantify information like future conditions, acres of habitat types protected, or populations benefitted.

Project Narrative

- **Use a Strong Structure:** Organize the narrative so that it is clear and follows the BRIC Technical and Qualitative Criteria scoresheets. This will make it easier for reviewers to give out points.
- **Tell a Story With Numbers:** Ensure the application is well-written and tells a clear story backed up by solid numbers and data. A reviewer should be able to pick up the application having no prior background and be able to understand exactly what the project is trying to do, what/who will benefit, etc.
- **Know your Audience:** In FY20, the national review panelist group for the qualitative criteria review was very diverse with representatives from a wide variety of agencies. Keep this in mind when writing a subapplication.
- **Focus on the Need:** AVOID language on required maintenance, deferred maintenance, repair, and replacement work. Instead, focus on why the project is needed to increase the level of protection.
- **Drive the Point Home:** If the project is a nature-based solution, this fact should be referred to frequently and often and should be included in the project title. It should be abundantly clear to reviewers that there is a nature-based component of the broader infrastructure solution.

Nature-Based Solution

- **Be Clear About Infrastructure Benefits:** The project MUST include a substantial benefit to infrastructure, in addition to the nature-based component.
- **Consider Thinking Big:** Both large-scale and small-scale projects are eligible for BRIC funding. However, landscape-scale projects that are considered from the perspective of whole community preparedness performed well in the national competition—the average federal cost share for projects was \$17.2 million per project in FY20.
- **Craft an Integrated Project:** Nature-based solution projects that were selected also had strong non-nature-based elements.
- **Propose a Complete Solution:** Projects that address only a small area within a greater area of need tend to underperform and run the risk of being seen as band-aid solutions. Projects should address the full extent of the hazard, even if that makes for a more expensive project.
- **Partner:** Successful projects have strong partnerships involving local, state, federal, private organizations, non-governmental organizations (NGOs), and/or academic partners and a strong technical team.
- **Outreach to Beneficiaries:** Be prepared to educate stakeholders with respect to the nature-based solution through modeling and renderings. Demonstrated community outreach and buy-in is a plus.
- **Grease the Skids:** Coordinate early with any applicable resource agencies to ensure that the project is feasible from a permitting standpoint and to begin building consensus and support for the project. Note that permitting conditions and priorities may change over time.
- **Be Creative:** Successful projects incorporated nature-based solutions in artful ways to integrate green/gray elements and show the interdependency of the project to the entire community's resiliency. That said, projects still need to be technically sound and within the bounds of reason. The most innovative solutions will require the most justification.
- **Rely on the Science:** Invest in engineering and modeling for the proposed NbS to substantiate the project need.
- **Learn from Winners:** Successful national competition projects shared the following four elements: they were infrastructure projects, mitigated one or more Community Lifelines, received high building code scores, and had high BSEGS ratings.
- **Understand FEMA Interests:** FEMA is particularly interested in innovative NbS to address urban heat and drought, as well as projects that restore the ecological function, flood storage capacity, recreational opportunities, and habitat creation potentials of buyout lands.
- **Create Environmental Value:** Develop nature-based projects that raise ecological baselines (provide uplift), support T&E species, and self-mitigate.
- **Link Social and Environmental Benefits:** Consider how the NbS can enhance equity by supporting socially vulnerable communities. This might be through providing recreational benefits to improve mental and physical health, or by providing spaces near nature where families and friends can celebrate birthdays, weddings, or other social events.
- **Address Future Conditions:** Sufficient technical justification should be included to demonstrate that the subapplicant has considered future conditions, such as sea level rise, population and demographic changes, intensity and frequency of rainfall, etc.

Benefit-Cost Analysis

- **Go Beyond Damages Avoided:** In addition to damages avoided, consider direct and indirect/induced benefits; cascading impacts to Community Lifelines, residents, businesses, public services, infrastructure, and natural systems; and future conditions. The FEMA BCA tool is limited in how it captures social, environmental, resilience, and other non-traditional benefits from NbS. Discuss the project's intangible and non-quantifiable benefits in the narrative with ample justification for scoring under Qualitative Criteria.
- **Find Funding Partners:** There is a cap on the federal cost share FEMA provides, but not the overall project cost—very large projects that exceed the federal cap will require a larger non-federal match. Leveraging partnerships effectively can create opportunities for an in-kind match to replace a cash match.

- **The BCR is a Threshold Criteria:** The benefit-cost ratio itself is not factored in as part of the competition criteria, meaning that projects with higher BCRs do not necessarily perform better than projects with lower (but still greater than 1.0) BCRs.
- **Describe Outyear Benefits:** Some NbS benefits are realized on a longer term than the discount rate that FEMA's BCA Toolkit will recognize. These benefits can be discussed qualitatively in the narrative with supporting justification.
- **Consider Contingencies:** Applicants should plan well because FEMA does not provide additional funds for cost overruns after award.
- **Address Social Vulnerabilities:** FEMA builds in criteria to help smaller communities remain competitive (e.g., evaluating the percentage of the population benefited by the project, rather than the total number of people). Indicate the populations that will be impacted by the project, including what percentage of the community and any disadvantaged populations.
 - BRIC program criteria have been updated to create stronger support for Economically Disadvantaged Rural Communities or areas with higher Social Vulnerability Indices by requiring lower non-federal matches or BCRs.

Going Forward

FEMA is enhancing its BRIC program to include the following key priorities that should be considered in future applications.

- Funding projects that provide system-wide mitigation impacts for whole communities with a focus on resilience.
- Addressing climate change and other expected future conditions.
- Building strong stakeholder engagement, involvement, and collaboration.
- Increasing the capacity and capability of stakeholders to conceptualize, design, and implement NbS.
- Exploring opportunities to build new partnerships to benefit underserved communities and vulnerable populations.

FEMA Resources

[FY21 NOFO](#) | [Technical Criteria](#) | [Qualitative Criteria](#) | [Webinars](#) | [Application Tips](#)

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