

Hazard Mitigation Assistance Program and Policy Guide

Hazard Mitigation Grant Program, Hazard Mitigation Grant Program Post Fire,
Building Resilient Infrastructure and Communities, and Flood Mitigation
Assistance

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Titles of Opportunities

- Hazard Mitigation Grant Program (HMGP)
- Hazard Mitigation Grant Program Post Fire (HMGP Post Fire)
- Building Resilient Infrastructure and Communities (BRIC)
- Flood Mitigation Assistance (FMA)

Assistance Listing Numbers

- 97.039 - HMGP
- 97.039 - HMGP Post Fire
- 97.047 - BRIC
- 97.029 - FMA

Federal Agency Name

- U.S. Department of Homeland Security (DHS)
- Federal Emergency Management Agency (FEMA)

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Part 1. Introduction

This Introduction addresses the scope and applicability of the [date] *Hazard Mitigation Assistance Program and Policy Guide* (HMA Guide or the Guide); provides an overview of the programmatic changes made since the Federal Emergency Management Agency (FEMA) issued the February 27, 2015, *Hazard Mitigation Assistance Guidance* and the *Hazard Mitigation Assistance Guidance Addendum* (2015 HMA Guidance and Addendum); and addresses guiding principles and priorities for Hazard Mitigation Assistance (HMA) programs: Hazard Mitigation Grant Program (HMGP), Hazard Mitigation Grant Program Post Fire (HMGP Post Fire), Building Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance (FMA).

Hazard mitigation is defined as any sustained action taken to reduce or eliminate long-term risk to people and property from natural hazard events and their effects. The long-term impact of hazard mitigation actions can be distinguished from those actions that are more closely associated with immediate preparedness, response and recovery activities, as hazard mitigation is the only emergency management phase specifically dedicated to breaking the cycle of damage, reconstruction and repeated damage.

HMA programs are mandated to provide assistance to state, local, tribal and territorial governments so they can plan for and implement activities that reduce or mitigate future disaster losses in their communities long term.¹ State, local, tribal and territorial governments are encouraged to take advantage of HMA programs both before and after disasters.

HMA programs are not the sole source of federal mitigation assistance. Mitigation is supported through other means and programs at FEMA, which are highlighted below, as well as at other government agencies. The Department of Housing and Urban Development, the Small Business Administration, the U.S. Department of Agriculture and nonprofit and private organizations work alongside FEMA to support mitigation.

A. Complementary FEMA Mitigation Programs

FEMA supports mitigation through various programs such as the Mitigation Planning program; Risk Mapping, Assessment and Planning (Risk MAP) program; and the Public Assistance (PA) program. Each of these programs is key to building more resilient communities.

FEMA's HMA Division and the National Mitigation Planning program are both part of the Federal Insurance and Mitigation Administration.

¹ [Robert T. Stafford Disaster Relief and Emergency Assistance Act](#), Public Law 100-707 (November 23, 1988); amending the Disaster Relief Act of 1974, Public Law 93-288 (May 22, 1974).

31 The National Mitigation Planning program is responsible for implementing requirements for hazard
32 mitigation planning and the HMA Division is responsible for all aspects of the HMA programs; the
33 Mitigation Planning program and HMA have a close partnership. The Mitigation Planning program
34 and HMA closely coordinate on mitigation planning subapplications before subapplicants receive
35 HMA funding.

36 Successful mitigation activities, including those assisted by HMA programs, are based on well-crafted
37 mitigation plans. Mitigation plans allow state, local, tribal and territorial governments to organize
38 their long-term strategies for protecting people and property from future natural hazard events after
39 assessing all disaster risk and vulnerabilities common to their planning areas. The mitigation
40 planning process is prescribed in regulations and should result in mitigation actions based on a fair,
41 logical and fact-based thought process. The mitigation plan must be adopted by the jurisdiction and
42 approved by FEMA unless otherwise delegated. Adoption and approval of state, local, tribal and
43 territorial plans are eligibility requirements for HMGP, HMGP Post Fire, BRIC and FMA.² State and
44 tribal mitigation plans are also eligibility requirements for PA Categories C-G, Fire Management
45 Assistance Grants (FMAGs), and the Rehabilitation of High Hazard Potential Dam (HHPD) grants.
46 These plans need to be updated every five years to account for changing risk profiles and priorities.³

47 Through Risk MAP, FEMA provides communities with education, risk communication and outreach to
48 better protect citizens from flood risks. The Risk MAP project lifecycle emphasizes community
49 engagement and partnerships to ensure a whole community approach that reduces flood risk and
50 builds more resilient communities. Risk MAP risk assessment information strengthens a local
51 community's ability to make more informed decisions. Risk MAP allows communities to better
52 determine and prioritize activities funded under HMA programs.

53 Through PA, FEMA supports mitigation activities done in conjunction with eligible repair or restoration
54 of facilities during the recovery process. PA Mitigation is often referred to as “406 Mitigation,” as the
55 basis for this program is in section 406 of the Robert T. Stafford Disaster Relief and Emergency
56 Assistance Act ([Stafford Act](#)).⁴

57 The HHPD grant program provides technical, planning, design and construction assistance in the
58 form of grants to non-federal sponsors for the rehabilitation of eligible high-hazard potential dams.
59 The HHPD program is authorized by [33 United States Code \(U.S.C.\) § 467f-2](#).

² For mitigation planning, the term “state” is inclusive of the District of Columbia, American Samoa, Commonwealth of Northern Mariana Islands, Guam, Puerto Rico and the U.S. Virgin Islands according to [44 Code of Federal Regulations \(CFR\) § 201.2](#)

³ [44 CFR § 201.3](#)

⁴ Public Law 100-707 (November 23, 1988); amending the Disaster Relief Act of 1974, Public Law 93-288 (May 22, 1974)

60 B. HMA Guide Scope

61 FEMA issues policies to articulate the agency’s intent to apply statutory and regulatory authority to
62 achieve desired outcomes. The purpose of the HMA Guide is to outline the policy and procedural
63 requirements of HMA’s programs over the lifecycle of an activity.

64 C. HMA Guide Applicability and Effective Date

65 The HMA Guide is used to achieve consistent implementation of the HMA programs across the
66 nation and should be a tool to aid decision-making. The HMA Guide is not law; however, it must be
67 followed when it is citing applicable statutory and regulatory requirements. When describing policy,
68 the HMA Guide should be followed to ensure consistent and fair administration of the HMA
69 programs.

70 The effective date of the HMA Guide is [TBD Date]. The [TBD Date] HMA Guide applies to HMGP,
71 HMGP Post Fire, BRIC and FMA. Unless stated otherwise in the HMA Guide or an appropriate
72 authoritative source, this Guide applies and supersedes the 2015 HMA Guidance and Addendum
73 and all policy clarifications issued between February 2015 and the date of publication of the HMA
74 Guide.

75 Major disaster declarations made and Notices of Funding Opportunity (NOFOs) published prior to the
76 effective date continue to be governed by the Guide (including any policy directives) in effect at the
77 time of the major disaster declaration or NOFO. This includes applications/subapplications
78 submitted and awards/subawards made under those prior disaster declarations and NOFOs.

79 For HMGP, the HMA Guide applies to Presidential Disaster Declarations declared on or after the date
80 of publication unless indicated otherwise.

81 The Disaster Recovery Reform Act of 2018 (DRRA)⁵ made legislative changes to the Stafford Act and
82 created the HMGP Post Fire program.⁶ For HMGP Post Fire, the HMA Guide applies to FMAG
83 declarations issued or published on or after [TBD Date].⁷

84 For FMA, the HMA Guide applies to NOFOs published on or after the effective date. This includes
85 applications/subapplications submitted and awards/subawards made under the NOFOs.

⁵ Public Law 115-254 (October 5, 2018).

⁶ Section 1204 of the DRRA amended section 404 of the Stafford Act to allow FEMA to provide HMGP assistance for hazard mitigation measures that substantially reduce the risk of future damage, hardship, loss or suffering in any area affected by a major disaster, or any area affected by a fire for which assistance was provided under the [FMAG program](#) (section 420 of the Stafford Act). The HMGP Post Fire framework was outlined in [FEMA Policy #207-088-2: Hazard Mitigation Grant Program—Post Fire \(April 29, 2019\)](#) and is now fully incorporated into the HMA Guide.

⁷ States, federally recognized tribes and territories affected by fires resulting in a [FMAG](#) declaration on or after October 5, 2018, but before [TBD Date], are governed by the HMGP Post Fire framework outlined in [FEMA Policy #207-088-2](#).

86 On August 4, 2020, FEMA established the BRIC program, which implements section 1234 of DRRA,
 87 and is authorized under section 203 of the Stafford Act.⁸ For BRIC, the HMA Guide applies to
 88 applications/subapplications submitted and awards/subawards made under the BRIC NOFO issued
 89 on or after [TBD Date]. BRIC applications and subapplications submitted before the effective date of
 90 the HMA Guide are governed by the NOFO and BRIC guidance materials applicable for the year in
 91 which the applications are made, rather than prior versions of the HMA Guidance and the Addendum
 92 that were published before the implementation of BRIC.

93 FEMA may administer the Pre-Disaster Mitigation (PDM) grant program as directed by Congress. For
 94 PDM, the HMA Guide generally applies to NOFOs published on or after [TBD Date]. Please refer to the
 95 relevant PDM NOFO for additional guidance.

96 If any requirements in the HMA Guide conflict with the applicable NOFO, the requirements in the
 97 NOFO take precedence. The HMA Guide is subject to legal and regulatory changes enacted after
 98 publication. FEMA periodically assesses its program and policy guidance and may issue new policy or
 99 guidance. The information provided in the HMA Guide is applicable unless otherwise stated in
 100 updated policy or other guidance materials.

101 [Table 1](#) summarizes the applicability of the various versions of the HMA Guidance/Guide to the HMA
 102 programs:

103 **Table 1: HMA Guidance/Guide Applicability**

Program	The [TBD Date] HMA Guide Applies to:	2015 HMA Guidance and Addendum or Prior Versions Apply to:
Hazard Mitigation Grant Program (HMGP)	Major disaster declarations made on or after [TBD Date]	Major disaster declarations made before [TBD Date]
HMGP Post Fire	FMAG declarations made on or after [TBD Date]	FMAG declarations made on or after October 5, 2018 ⁹
Building Resilient Infrastructure and Communities (BRIC)	NOFO published on or after [TBD Date]	Not applicable (follow the information posted on http://FEMA.gov/BRIC)
Flood Mitigation Assistance (FMA)	NOFO published on or after [TBD Date]	NOFO published before [TBD Date]

104

⁸ Disaster Recovery Reform Act of 2018 (Pub. L. 115-254); [42 U.S.C. § 5133](#).

⁹ States, federally recognized tribes and territories affected by fires resulting in a [FMAG](#) declaration on or after October 5, 2018, but before [TBD Date], are governed by the HMGP Post Fire framework outlined in [FEMA Policy #207-088-2](#).

105 **D. Applicability of Other Publications**

106 Unless otherwise noted, when the HMA Guide references requirements detailed in other publications
107 (including FEMA, other government and professional publications), those requirements are
108 applicable as follows:

- 109 ▪ For HMGP and HMGP Post Fire, applicants must follow the version of the publication in effect
110 on the date of the disaster declaration.

- 111 ▪ For BRIC and FMA, applicants must follow the requirements in the applicable NOFO. Unless
112 otherwise noted in the NOFO, applicants must follow the version of the publication in effect
113 on the start date of the application period.

114 **E. Strategic Considerations for Mitigation**

115 The HMA Guide considers the following strategic considerations: the National Mitigation Investment
116 Strategy, community lifelines, climate change and equity. These topics are explored in further detail
117 below.

118 **E.1. National Mitigation Investment Strategy**

119 In August 2019, FEMA published the [National Mitigation Investment Strategy](#). The Investment
120 Strategy is a national strategy for advancing mitigation investment to reduce risks posed by natural
121 hazards (e.g., sea level rise, droughts, floods, hurricanes, tornadoes, wildfires and earthquakes) and
122 to increase the nation’s resilience to natural hazards. It was developed by the Mitigation Framework
123 Leadership Group, which is chaired by FEMA.¹⁰ The Mitigation Framework Leadership Group
124 comprises federal, state, local, tribal and territorial public-sector representatives. Its responsibilities
125 include organizing mitigation efforts across the federal government, integrating federal efforts to
126 deliver the mitigation core capabilities described in the [National Mitigation Framework](#) (June 2016),
127 and assessing the effectiveness of these capabilities across the United States.¹¹ Through the
128 Mitigation Framework Leadership Group and its HMA programs, FEMA continually looks for
129 opportunities to coordinate among federal agencies and programs to better align mitigation efforts to
130 advance the National Mitigation Investment Strategy.

¹⁰ The Mitigation Framework Leadership Group is a national coordinating group authorized by the [Post-Katrina Emergency Management Reform Act of 2006](#), Title VI of Public Law 109-295 (October 4, 2006).

¹¹ The National Mitigation Framework describes the benefits of being prepared by understanding risks and what actions can help address those risks. The second edition of the National Mitigation Framework was published by FEMA in 2016 and focuses on a culture of preparedness that is centered on risk and resilience. The document provides context for how the whole community works together and how mitigation efforts relate to all other parts of national preparedness. Focusing on the mitigation aspect of preparedness, the Framework addresses how the nation will develop, deploy and coordinate mitigation core capabilities to reduce loss of life and property by lessening the impact of disasters.

131 The Investment Strategy responds to a recommendation made in 2015 by the U.S. Government
132 Accountability Office after reviewing the federal response to Hurricane Sandy. Among the
133 Government Accountability Office’s key findings were that mitigation investments had not been
134 coordinated within and outside of the government, thereby reducing the effectiveness of
135 investments. Thus, the Investment Strategy calls for non-federal partners and the federal
136 government to work together to better identify, prioritize and implement mitigation investments.

137 The Investment Strategy’s purpose is to increase the nation’s resilience to natural hazards through
138 more effective, efficient mitigation investment. The Investment Strategy’s objective is to identify and
139 measure the effectiveness of mitigation investments and inform decisions on when and where to
140 make investments. The Investment Strategy’s recommendations focus specifically on how the
141 federal government and non-federal partners can identify, support, influence and align whole
142 community mitigation investments.

143 The Investment Strategy’s goals are to:

- 144 1. **Show how mitigation investments reduce risk:** Goal 1 encourages a common understanding of
145 how mitigation investments reduce risks to people, homes, neighborhoods, cultural and historic
146 resources, ecosystems, and lifelines such as communications, energy, transportation and water.
147 Recommendations to achieve this goal include making mitigation investments relevant,
148 increasing investments by building the capacity of communities to address their risks, and using
149 common measures to aid decision-making for mitigation investment.
- 150 2. **Coordinate mitigation investments to reduce risk:** Goal 2 encourages information sharing,
151 strategy coordination and making funding sources easier to access and use. Improved access to
152 risk and risk reduction information will help the federal government and non-federal partners
153 justify mitigation investments and choose the most cost-effective and reasonable actions.
154 Improved coordination will help the whole community more accurately forecast where mitigation
155 can be effective and when to pursue mitigation investments.
- 156 3. **Make mitigation investment standard practice:** Goal 3 calls for the whole community to consider
157 mitigation in all investment decisions, especially for buildings and infrastructure. This includes
158 adopting and enforcing up-to-date building codes, safeguarding lifelines and critical
159 infrastructure, and using and expanding financial products and approaches that transfer and
160 reduce risk. Financial products and approaches could include funding, incentives and
161 opportunities to transfer financial risk.

162 The HMA Guide considers and addresses some of the Investment Strategy’s goals. Additionally, while
163 the Investment Strategy does not make structural changes to existing federal programs, such as
164 HMA programs, the programs play an important part in reaching the Investment Strategy’s goals.
165 HMA programs support mitigation activities that reduce or eliminate potential losses to state, local,
166 tribal and territorial governments, fostering resilience against the effects of natural disasters.

167 The Investment Strategy’s principles, which are also relevant to the HMA programs, are:

- 168 ▪ **The Whole Community:** All goals and recommendations require collaboration and
169 commitment by the federal government, non-federal partners and individuals.
- 170 The [Whole Community](#) includes:
- 171 ○ Individuals and families, including those with disabilities.
- 172 ○ Businesses.
- 173 ○ Faith-based and community organizations.
- 174 ○ Nonprofit groups.
- 175 ○ Schools and academia.
- 176 ○ Media outlets.
- 177 ○ All levels of government including federal, state, local, tribal and territorial partners.
- 178 ▪ **Regional and community planning:** The whole community should consider regional and
179 community planning for mitigation activities. This includes public and private planning efforts
180 for land use, the environment, infrastructure, transportation, site planning and urban design.
181 Planning is foundational to identifying and developing sound mitigation activities that can be
182 funded by HMA programs.
- 183 ▪ **Nature-based solutions and natural assets:** The whole community should consider nature-
184 based solutions, such as green infrastructure, for cost-effectively managing the impacts of
185 natural hazards. These solutions may provide additional environmental, social and economic
186 benefits. The whole community should also consider protecting natural assets that help with
187 mitigation (e.g., wetlands that reduce the impact of waves on coastal land).
- 188 ▪ **Linking risk reduction and financial risk transfer:** The whole community should better link risk
189 reduction and financial risk transfer mechanisms for natural hazard–related risks. For
190 example, flood and other forms of hazard insurance accelerate recovery time frames to
191 reduce loss by transferring financial risks from disasters. Additionally, insurance providers
192 can increase incentives for policy holders to physically reduce a policy holder’s risks and
193 reduce overall damages, suffering and costs from a disaster.
- 194 ▪ **Changing conditions:** Population growth, development and changing weather conditions will
195 influence mitigation needs and priorities.
- 196 ▪ **Vulnerable populations:** The whole community should ensure vulnerable populations are
197 represented during implementation of Investment Strategy recommendations.

198 **E.2. Community Lifelines**

199 An additional priority that has emerged for HMA programs since the release of the Investment
 200 Strategy is the importance of [community lifelines](#).¹² As part of the [National Response Framework](#)
 201 (NRF), FEMA developed the community lifeline framework (lifelines).¹³ Lifelines enable the
 202 continuous operation of critical business and government functions and are essential to human
 203 health and safety or economic security. Lifelines are the integrated network of assets, services and
 204 capabilities that are used day-to-day to support the recurring needs of the community; mitigating
 205 lifelines should reduce cascading impacts across government and business functions and lessen
 206 system-wide damages.

207 Lifelines have served as a driving force behind the agency’s strategic goal of promoting and
 208 sustaining a ready FEMA and prepared nation. At the same time, the concept is intended to increase
 209 agencies’ response effectiveness and to promote the unification of response efforts across
 210 communities with the goal to stabilize or re-establish the communities’ most fundamental services
 211 during and after a disaster.

212 Lifelines are the most fundamental services needed for society to function. These services enable
 213 the continuous operation of government and business functions that are essential to human health
 214 and economic security. Lifelines include safety, security, food, shelter, and water, health and medical
 215 services, energy, communications, transportation and hazardous materials. The stabilization of
 216 community lifelines allows other aspects of society to function. While lifelines were developed to
 217 support response planning and operations, the concept can be applied across the entire
 218 preparedness cycle, including mitigation planning and mitigation activities.

219 The Investment Strategy encourages the federal government, non-federal partners and individuals to
 220 identify and prioritize activities that mitigate risk to lifelines to reduce the likelihood of disruption to
 221 critical services essential to human health, public safety and economic security. Mitigating risks to
 222 lifelines before, during and after disasters may result in less devastation, and response and recovery
 223 efforts may be faster and more effective.

224 Through its HMA programs, FEMA promotes mitigation to reduce risks to lifelines before disasters
 225 and quickly restore lifelines after disasters to prevent cascading impacts. HMA programs also
 226 encourage applicants and subapplicants to include partners responsible for maintaining and
 227 improving lifelines into their mitigation planning. Additionally, applicants and subapplicants are

¹² Community lifelines were tested and validated by federal, state, local, tribal and territorial partners in the aftermath of hurricanes Michael (October 2018), Florence (September 2018) and Dorian (August 2019), Super Typhoon Yutu (October 2018), the Alaska earthquake (December 2018) and the coronavirus disease 2019 (COVID-19) pandemic (2020). They were formalized in the [National Response Framework](#), Fourth Edition (October 2019).

¹³ The National Preparedness System outlines an organized process for the whole community to move forward with its preparedness activities and achieve the National Preparedness Goal. The NRF sets the strategy and doctrine for how the whole community builds, sustains and delivers the response core capabilities identified in the National Preparedness Goal in an integrated manner with the other mission areas. The [fourth edition of the NRF](#) emphasizes enhancing the unity of effort between the government and the private sector through better coordination and collaboration.

228 encouraged to prioritize activities that will improve the resilience of critical services to disadvantaged
229 populations in future hazard events and that can be implemented using a wide range of public and
230 private resources in accordance with the Investment Strategy.

231 **E.3. Climate Change and Equity**

232 President Biden issued [Executive Order \(EO\) 13990: Protecting Public Health and the Environment](#)
233 *and Restoring Science to Tackle the Climate Crisis* (January 20, 2021); [EO 14008: Tackling the](#)
234 *Climate Crisis at Home and Abroad* (January 27, 2021); and [EO 14030: Climate-Related Financial](#)
235 *Risk* (May 20, 2021), which place climate change at the heart of federal priorities. FEMA recognizes
236 challenges posed by climate change, including more intense storms, frequent heavy precipitation,
237 heat waves, drought, prolonged wildfires, extreme flooding and changes in sea levels. Climate
238 change is driving disaster suffering and costs up and will continue to have increasing impacts on
239 mitigation, preparedness, response and recovery operations as well as the resiliency of critical
240 infrastructure and various emergency assets.

241 FEMA has issued several policies that facilitate the mitigation of adverse effects from climate change
242 on the built environment, structures and infrastructure. Communities are taking steps to address
243 climate change through the engagement of individuals, households, local leaders, representatives of
244 local organizations, private sector employers, and through existing community networks.
245 Communities are also working to protect themselves and the environment by updating building
246 codes, encouraging the conservation of natural and beneficial functions of the floodplains, investing
247 in more resilient infrastructure, and engaging in mitigation planning. FEMA plays an important role in
248 supporting community-based resilience efforts, establishing policies, and providing guidance to
249 promote mitigation options that protect critical infrastructure, lifelines and public resources.

250 Through EO 14030, President Biden reinstated [EO 13690: Establishing a Federal Flood Risk](#)
251 *Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*
252 (January 30, 2015). This executive order re-established the Federal Flood Risk Management
253 Standard to address current and future flood risk and ensure that projects funded with taxpayer
254 dollars last as long as intended. FEMA has begun partial implementation of the Federal Flood Risk
255 Management Standard with the issuance of new policies to increase elevation standards for HMA
256 projects. See [Part 12](#) for more information about these requirements.¹⁴

257 While the Investment Strategy recognizes the need to represent vulnerable populations, the
258 continued emphasis on equitable outcomes across the HMA programs has been strengthened by
259 other federal actions. On January 20, 2021, President Biden signed [EO 13985: Advancing Racial](#)
260 *Equity and Support for Underserved Communities Through the Federal Government*, which requires
261 the federal government to “pursue a comprehensive approach to advancing equity for all, including

¹⁴ EO 13690 was issued under President Obama’s administration and was revoked on August 15, 2017, by President Trump through [EO 13807: Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects](#).

262 people of color and others who have been historically underserved, marginalized, and adversely
263 affected by persistent poverty and inequality.”

264 EO 13985 defines equity as “the consistent and systematic fair, just, and impartial treatment of all
265 individuals, including individuals who belong to underserved communities that have been denied
266 such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian
267 Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian,
268 gay, bisexual, transgender, queer, and other (LGBTQ+) persons; persons with disabilities; persons
269 who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.”

270 Data has shown that the most underserved and marginalized populations in our communities tend to
271 live in at-risk hazard-prone areas or in homes with substandard construction.¹⁵ The data also
272 indicates that underserved and marginalized communities are less likely to recover after a disaster.
273 Thus, FEMA has long worked with applicants and subapplicants to ensure that the concerns and
274 needs of all members of the community are being considered, especially those in the communities
275 that are most underserved and marginalized. FEMA works to ensure that all communities have fair
276 and equal access to FEMA programs, including HMA programs, to mitigate future impacts on disaster
277 and to reduce suffering.

278 HMA developed an Equity Action Plan in response to [EO 13985](#). The [HMA Equity Action Plan](#) includes
279 a series of actions focused on programmatic advances in the areas of data collection and analysis,
280 program design, and outreach and engagement that will comprehensively assess HMA programs and
281 help to increase state, local, tribal, and territorial capability and capacity. These efforts will provide
282 program enhancements to increase the access to and the navigation of HMA programs. These
283 enhancements include initiatives such as Direct Technical Assistance and location-based mitigation
284 solutions designed to target the underserved communities that have the greatest natural hazard
285 mitigation and resilient recovery needs.

286 HMA also aims to promote equity in delivery of its programs in line with the Administration’s
287 Justice40 Initiative, which is outlined in [EO 14008](#). In 2021, two of FEMA’s HMA grant programs
288 were selected as pilot programs under the Justice40 Initiative: BRIC and FMA. Under this pilot, BRIC
289 and FMA will prioritize assistance that benefits disadvantaged communities as referenced in [EO](#)
290 [14008](#). More information can be found in the respective programs’ 2021 and 2022 NOFOs.

¹⁵ Emrich, Christopher T., Tate, Eric, Larson, Sarah E., and Zhou, Yao, “[Measuring social equity in flood recovery funding.](#)” *Environmental Hazards*, 19:3, 228-250.

291 F. Changes from the 2015 Hazard Mitigation 292 Assistance Guidance and Addendum

293 FEMA incorporated policies and guidance materials issued since the publication of the 2015 HMA
294 Guidance and Addendum into the HMA Guide while simultaneously simplifying and streamlining HMA
295 program guidance. Additionally, FEMA made organizational revisions to improve user experience.

296 The following subsections provide an overview of the changes, organized by topic area.

297 F.1. Program and Policy Changes

298 Substantial program and policy changes included in the HMA Guide are outlined in this section.

- 299 ▪ **Pre-Disaster Mitigation (PDM) Grant Program:** Specific guidance for PDM was removed and
300 language was added to clarify that FEMA may administer the PDM grant program as directed
301 by Congress. For more information and guidance regarding the PDM program, refer to the
302 relevant fiscal year’s PDM Notice of Funding Opportunity, the 2015 HMA Guidance and
303 Addendum or earlier versions, and other programmatic guidance relating to PDM.
- 304 ▪ **Building Resilient Infrastructure and Communities (BRIC) Program:** The HMA Guide
305 incorporated [FEMA Policy #104-008-05: Building Resilient Infrastructure and Communities](#)
306 (February 14, 2022), into [Part 10. Section 1234 of DRRRA](#) created BRIC, amending section
307 203 of the Stafford Act. Its first award cycle was in fiscal year 2020.
- 308 ▪ **HMGP Post Fire Application Period:** The application submission time limit under [44 CFR §](#)
309 [206.436\(d\)](#) was deemed non-applicable to the HMGP Post Fire program. Therefore, the
310 HMGP Post Fire program has its own application period, which is clarified in [Part 10](#).
- 311 ▪ **HMGP Post Fire Policy:** The HMA Guide incorporated [FEMA Policy #207-088-2: Hazard](#)
312 [Mitigation Grant Program—Post Fire](#) (April 29, 2019), into [Part 10](#). This policy applies to
313 FMAG declarations issued or published on or after October 5, 2018. The HMA Guide
314 supersedes the policy document and any FEMA materials or content relating to it, unless
315 stated otherwise. All relevant content is incorporated into the HMA Guide.
- 316 ▪ **Ecosystem Services Benefits Policy:** On September 28, 2020, FEMA issued FEMA Policy FP-
317 108-024-02: [Ecosystem Service Benefits in Benefit-Cost Analysis for FEMA’s Mitigation](#)
318 [Programs](#). The HMA Guide incorporates the policy into [Part 5](#) and [Part 12](#) for project-specific
319 guidance. FP-108-024-02 eliminated the 0.75 BCA threshold and permitted the
320 consideration of ecosystem service benefits for a project regardless of BCR value. Therefore,
321 ecosystem services benefits can be used in the BCA for all eligible HMA activities that
322 demonstrate the restoration or enhancement of the natural environment. The Guide
323 supersedes the policy and any FEMA materials or content relating to it, unless stated
324 otherwise. FP-108-024-02 superseded two previous policies:

- 325 ○ **FEMA Policy FP-108-024-01:** Considerations of Environmental Benefits in the Evaluation
326 of Acquisition Projects under the Hazard Mitigation Assistance Programs (June 18,
327 2013), which introduced the allowance of ecosystem service benefits if the Benefit-Cost
328 Ratio (BCR) of an acquisition/open-space project was 0.75 or greater using traditional
329 risk reduction benefits.
- 330 ○ **FEMA policy clarification:** [Benefit-Cost Analysis Tools for Drought, Ecosystem Services,
331 and Post-Wildfire Mitigation for Hazard Mitigation Assistance](#) (May 27, 2016), which
332 stated that the inclusion of ecosystem service benefits in the Benefit-Cost Analysis (BCA)
333 was no longer limited to only acquisition/open-space mitigation activities. The
334 clarification authorized the use of ecosystem service benefits for all mitigation project
335 types when the mitigation project was calculated to have a BCR of 0.75 or greater using
336 traditional risk-reduction benefits.
- 337 ■ **Program Administration by States (PAS) Pilot Policy:** On October 16, 2017, FEMA published
338 [Addendum to the Hazard Mitigation Assistance Guidance: Program Administration by States
339 Pilot, Hazard Mitigation Grant Program](#), which is the Hazard Mitigation Grant Program
340 (HMGP) policy applicable to HMGP for states, territories, and tribes. The policy was published
341 as an addendum but not physically included in the main body of the 2015 HMA Guidance
342 and Addendum. The updated HMA Guide incorporates the PAS policy into [Part 14](#). The Guide
343 supersedes the policy document and any FEMA materials or content relating to it, unless
344 stated otherwise. Additionally, FEMA updated the Minimum Eligibility Criteria Checklists,
345 previously contained in Appendices F and G in the 2015 HMA Guidance and Addendum and
346 made them applicable to HMGP only and for purposes of PAS.
- 347 ■ **National Flood Insurance Program Eligibility Requirements and Structures in the Special
348 Flood Hazard Area (SFHA):** The 2015 HMA Guidance and Addendum indicated that for
349 structures that remain in the SFHA after the implementation of the mitigation project, flood
350 insurance must be maintained for the life of the structure up to an amount at least equal to
351 the project cost or to the maximum limit of coverage made available with respect to the
352 particular property, whichever is less.
- 353 ○ In [Part 4](#), and based on the statutory language, FEMA clarified that for structures in the
354 SFHA during or at the time of project completion, flood insurance must be maintained for
355 the life of the structure and after the completion of the mitigation project.
- 356 ○ The HMA Guide therefore states that for structures in the SFHA during or at the time of
357 project completion, flood insurance must be maintained after the completion of the
358 mitigation project for the life of the structure to an amount at least equal to the project
359 cost or to the maximum limit of coverage made available with respect to the particular
360 property, whichever is less.
- 361 ■ **HMGP Period of Performance Updates:** In [Part 8](#), FEMA extended the award period of
362 performance from 36 to 48 months for HMGP to allow more time for activity completion and

- 363 closeout activities. This change is made in conjunction with updates to closeout deadlines in
364 [2 CFR part 200](#). FEMA also expanded authority to regional administrators to grant up to two
365 12-month extensions to the HMGP period of performance. This change will alleviate the
366 administrative burden by reducing the number of period of performance extension requests
367 and the amount of time needed by FEMA to process them.
- 368 ■ **HMGP and HMGP Post Fire Advance Assistance:** In [Part 11](#), FEMA clarified that advance
369 assistance must be used to support the development of hazard mitigation measures that are
370 eligible under Section 404 of the Stafford Act.
- 371 ■ **HMGP Application Period Extension:** In [Part 10](#), FEMA clarified recipient application extension
372 requirements and included aspects of the *Policy Memo: Hazard Mitigation Grant Program*
373 *(HMGP) Application Period Extensions to Support Effective and Expedient Program Delivery*.
- 374 ■ **HMGP Ceiling:** In [Part 10](#), FEMA provided additional guidance regarding HMGP assistance
375 estimates and included aspects of the *Policy Memo: Hazard Mitigation Grant Program*
376 *Ceiling Update*.
- 377 ■ **HMGP Obligation:** In [Part 8](#) and [Part 10](#), FEMA clarified that HMGP can only be obligated for
378 new activities when the application period and the period of performance are open. HMGP
379 funding cannot be obligated or reprogrammed for mitigation activities once the application
380 period is closed and the period of performance has expired.
- 381 ■ **12-Month Lock-in and Deobligation:** In [Part 10](#), FEMA clarified that assistance for activities
382 approved and obligated before the 12-month lock-in will not be deobligated when the lock-in
383 is less than the previous estimate.
- 384 ■ **Closeout Requirements and Liquidation Period:** FEMA added specific closeout requirements
385 for all mitigation activities in [Part 11](#), [Part 12](#) and [Part 13](#).
- 386 ○ FEMA included procedures requesting additional information when closeout reports are
387 deficient and information on when FEMA will administratively close out an award.
- 388 ○ According to the updated grants management regulation at [2 CFR § 200.344](#), effective
389 November 13, 2020, FEMA updated the recipient closeout liquidation period from 90 to
390 120 calendar days and updated the deadline for recipients to close out awards from 180
391 to 120 calendar days.
- 392 ■ **Extraordinary Circumstances for Mitigation Plans:** FEMA included clarifying information about
393 remedies of noncompliance when mitigation plans are not completed within 12 months in
394 [Part 4](#) and [Part 9](#). If FEMA grants an extraordinary circumstances exception, a local or tribal
395 mitigation plan must be approved by FEMA within 12 months of the award of the project
396 subaward to that community.

- 397 ○ FEMA clarified that if a plan is not provided within this time frame, the project subaward
 398 will be terminated, and any costs incurred after notice of subaward termination will not
 399 be reimbursed by FEMA.
- 400 ○ Additionally, FEMA clarified that if the mitigation plan is not approved by FEMA within 12
 401 months of the award and if the subaward also involved a mitigation planning award,
 402 FEMA should notify the recipient of its failure to meet the additional specific award or
 403 subaward conditions. FEMA also should request that the issue be corrected following
 404 remedies for noncompliance procedures, which is described in [Part 8](#). If compliance
 405 cannot be achieved, FEMA will apply a remedy action to the subaward (and planning
 406 subaward, if applicable) to address the noncompliance and may, as a result, withhold
 407 assistance, recoup assistance, suspend or terminate the planning subaward.
- 408 ■ **Greatest Savings to the Fund Methodology:** Because of the changes enacted by the [Biggert-](#)
 409 [Waters Flood Insurance Reform Act of 2012](#), Public Law 112-141 (July 6, 2012), FEMA
 410 discontinued the use of Greatest Savings to the Fund methodology to demonstrate cost-
 411 effectiveness and removed reference to it from the updated HMA Guide.
- 412 ■ **Apportionment of HMGP Between Two Recipients:** In [Part 2](#) and [Part 10](#), FEMA clarified that
 413 the amount of HMGP assistance available under the disaster declaration will be apportioned
 414 among applicants if there is more than one applicant under that disaster declaration. That is,
 415 if a state and a federally recognized tribe are applicants under the same disaster declaration,
 416 then the available HMGP assistance will be apportioned among the state and the federally
 417 recognized tribe. The apportionment is based on the disaster assistance provided within
 418 tribal lands.
- 419 ■ **Reasonable Costs:** FEMA added information about cost eligibility and cost reasonableness
 420 principles under [2 CFR part 200](#) to align with PA procedures. Generally, the HMA Guide refers
 421 to the reasonable cost principles under 2 CFR part 200. FEMA issued a job aid on reasonable
 422 cost evaluation, [Public Assistance: Reasonable Cost Evaluation](#) (October 13, 2018). In 2018,
 423 HMA adopted PA guidance on the reasonable cost evaluation as part of the implementation
 424 of [section 1215](#) of DRRA: “Management Costs.” See [FEMA Policy #104-11-1: Hazard](#)
 425 [Mitigation Grant Program Management Costs \(Interim\)](#) (November 14, 2018) and the job aid
 426 [Public Assistance Reasonable Cost Evaluation Job Aid – Hazard Mitigation Grant Program](#)
 427 [Crosswalk \(March 23, 2020\)](#). The HMA Guide generally applies the PA principles on
 428 reasonable cost determinations.
- 429 ■ **Real Property Disposition Requirements:** To comply with [2 CFR § 200.330](#), FEMA added
 430 information concerning the disposition of real property that was acquired or improved under
 431 HMA when the property is no longer needed for the intended purpose. FEMA included
 432 procedures for how and when the recipient should obtain disposition instructions from FEMA.
 433 In addition, FEMA added that recipients must provide a completed SF-429, “Real Property
 434 Status Report,” at closeout for all property acquired and for certain project types that
 435 improve real property.

- 436 ▪ **Clarification of Effective Date of Other Publications:** In [Part 1](#), FEMA clarified the effective
 437 date of other government and professional publications when the HMA Guide references
 438 requirements detailed in these publications.

439 **F.1.1. REGULATORY CHANGES**

- 440 ▪ **Changes to Title 2 Code of Federal Regulations (CFR) part 200:** The HMA Guide includes
 441 regulatory changes made in [2 CFR part 200](#), published in the Federal Register on August 13,
 442 2020, that expand information on grants management requirements and procedures. The
 443 effective date of the changes was November 12, 2020, except for two provisions, [2 CFR §](#)
 444 [200.216](#) and [2 CFR § 200.340](#) that were effective on August 13, 2020.
- 445 ○ FEMA updated information about subaward and award deadlines in relation to the period
 446 of performance and clarified that all costs, including management costs, must be spent
 447 within the subaward or award period of performance.
- 448 ○ FEMA added information about procurement and contracting requirements under 2 CFR
 449 part 200, including [2 CFR § 200.320](#) and [2 CFR § 200.321](#) and related documentation
 450 requirements, including the following:
- 451 – New requirements for states to follow socioeconomic contracting steps and to
 452 encourage the use of domestic preferences.
- 453 – Prohibition on procuring certain types of covered telecommunications equipment
 454 from Huawei and ZTE Technologies, as published in [FEMA Policy #405-143-1:](#)
 455 *Prohibitions on Expending FEMA Award Funds for Covered Telecommunications*
 456 *Equipment or Services* on May 10, 2022.
- 457 ○ Allowability of non-competitive procurement methods for purchases below the micro-
 458 purchase threshold.
- 459 ▪ **Updated Regulations that Impact HMA Programs:** FEMA incorporated the changes made to
 460 the HMA regulations with the final rule published on September 10, 2021, and effective
 461 October 1, 2021.¹⁶
- 462 ▪ **Uniform Relocation Assistance and Real Property Acquisition Policies Act:** In [Part 4](#), FEMA
 463 clarified that projects involving acquisition, rehabilitation or demolition may be subject to the
 464 requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act
 465 of 1970 (URA), Public Law 91-646 (January 2, 1971), as amended, [42 U.S.C. Chapter 61](#).
 466 Additionally, FEMA clarified that costs incurred to meet URA requirements are eligible and

¹⁶ FEMA’s final rule entitled “FEMA’s Hazard Mitigation Assistance and Mitigation Planning Regulations” published at [86 FR 50653](#) (September 10, 2021) and correction published at 86 FR 51832 (effective September 17, 2021).

467 should be included in the subapplication budget. The 2015 HMA Guidance and Addendum
 468 included URA requirements only under the acquisition project type.

469 **F.1.2. EXECUTIVE ORDER CHANGES**

470 ▪ **Advancing Racial Equity and Support for Underserved Communities Through the Federal**
 471 **Government:** On January 20, 2021, President Biden issued [EO 13985](#): *Advancing Racial*
 472 *Equity and Support for Underserved Communities Through the Federal Government*, which
 473 requires the federal government to “pursue a comprehensive approach to advancing equity
 474 for all, including people of color and others who have been historically underserved,
 475 marginalized, and adversely affected by persistent poverty and inequality.” As a priority for
 476 FEMA and HMA, FEMA included reference to EO 13985 in [Part 1](#).

477 ▪ **Protecting Public Health and the Environment and Restoring Science to Tackle the Climate**
 478 **Crisis:** On January 20, 2021, President Biden issued [EO 13990](#): *Protecting Public Health and*
 479 *the Environment and Restoring Science to Tackle the Climate Crisis*, which requires that the
 480 federal government “promote and protect our public health and the environment; and
 481 conserve our national treasures and monuments, places that secure our national memory.”
 482 As a priority for FEMA and HMA, FEMA included reference to EO 13990 in [Part 1](#).

483 ▪ **Tackling the Climate Crisis at Home and Abroad: On January 27, 2021, President Biden**
 484 **Issued EO 14008:** *Tackling the Climate Crisis at Home and Abroad*, which requires the
 485 federal government to “put the climate crisis at the center of United States foreign policy and
 486 national security, while taking a government-wide approach to the climate crisis.” As a
 487 priority for FEMA and HMA, FEMA included reference to EO 14008 in [Part 1](#).

488 ▪ **Climate-Related Financial Risk:** On May 20, 2021, President Biden issued [EO 14030](#):
 489 *Climate-Related Financial Risk*, which reinstates [EO 13690](#), *Establishing a Federal Flood*
 490 *Risk Management Standard and a Process for Further Soliciting and Considering*
 491 *Stakeholder Input*. Through the reinstatement of EO 13690, President Biden reestablished
 492 the Federal Flood Risk Management Standard to address current and future flood risk and
 493 ensure that projects funded with taxpayer dollars last as long as intended. As a priority for
 494 FEMA and HMA, FEMA included reference to EO 14030 in [Part 1](#).

495 **F.1.3. COST-EFFECTIVENESS CHANGES**

496 ▪ **Cost-Effectiveness:** FEMA consolidated information about cost-effectiveness and principles
 497 governing the BCA into [Part 5](#). Additionally, certain guidance issued since the 2015 HMA
 498 Guidance and Addendum has been incorporated. FEMA provided additional BCA resources to
 499 support evaluating the cost-effectiveness of various mitigation activities including aquifer
 500 storage and recovery, floodplain and stream restoration, floodwater diversion and storage,
 501 ecosystem services benefits, and post-wildfire mitigation actions.

502 ▪ **Benefit Cost Analysis and Management Costs:** In [Part 5](#), FEMA clarified that management
 503 costs may be excluded from project costs for the purpose of the benefit cost analysis.

- 504 ▪ **Benefit Cost Analysis and Social Benefits:** In [Part 5](#), FEMA eliminated the requirement to
505 meet a 0.75 BCR threshold before social benefits can be incorporated in a benefit-cost
506 analysis.
- 507 ▪ **Cost-Effectiveness Determinations for Acquisitions and Elevations in the SFHA Using Pre-**
508 **Calculated Benefits Memorandum:** In [Part 12](#), FEMA updated the pre-calculated benefits for
509 acquisitions, elevations, and mitigation reconstruction projects in the Special Flood Hazard
510 Area based on an updated pre-calculated benefits memorandum published on September
511 30, 2021, that is available on FEMA's [Benefit-Cost Analysis](#) webpage.
- 512 ▪ **Pre-Calculated Benefits for Certain Hospital Generators to Demonstrate Cost-Effectiveness:**
513 In [Part 5](#) and [Part 12](#), FEMA updated content by referring to pre-calculated benefits for
514 certain hospital generators based on a memorandum published on September 30, 2021,
515 that is available on FEMA's [Benefit-Cost Analysis](#) webpage.
- 516 ▪ **Benefit-Cost Analysis Efficiencies for Repetitive Loss and Severe Repetitive Loss Acquisition**
517 **Projects Located Outside the Designated Special Flood Hazard Area (SFHA):** In [Parts 5 and](#)
518 [12](#), FEMA updated content to include the use of pre-calculated benefits to demonstrate cost
519 effectiveness for Repetitive Loss and Severe Repetitive Loss acquisition projects located
520 outside the designated SFHA based on a memorandum published on February 15, 2022,
521 that is available on FEMA's [Benefit-Cost Analysis](#) webpage.
- 522 ▪ **Water Resource Projects and the BCA Determination:** In [Part 5](#), FEMA clarified that water
523 resource projects are not exempt from the HMA statutory requirement to demonstrate cost-
524 effectiveness even though these projects are exempt under the Office of Management and
525 Budget's [Circular A-94: Guidelines and Discount Rates for Benefit-Cost Analysis of Federal](#)
526 [Programs](#), if certain criteria are met, including that the project cost is more than \$10 million.
527 For a water resource project exceeding \$10 million, consult the Council on Environmental
528 Quality's [Principles, Requirements and Guidelines for Federal Investments in Water](#)
529 [Resources](#) (March 2013).
- 530 ▪ **BCA Guidance for Floodplain and Stream Restoration Projects:** In [Part 12](#), FEMA included
531 more information on the cost-effectiveness of floodplain and stream restoration projects
532 from the *Supplemental BCA Guidance for Floodplain and Stream Restoration Projects*.
- 533 ▪ **BCA Guidance for Floodwater Diversion and Storage Projects:** In [Part 12](#), FEMA included
534 more information on the cost-effectiveness of floodwater diversion and storage projects from
535 the *Supplemental BCA Guidance for Floodwater Diversion and Storage Projects*.
- 536 ▪ **Cost Effectiveness Determination for Non-Residential Hurricane Wind Retrofit Measures:** In
537 [Part 12](#), FEMA included more information on the cost-effectiveness of non-residential
538 hurricane wind retrofits from the *Cost Effectiveness Determination for Non-Residential*
539 *Hurricane Wind Retrofit Measures Funded by FEMA Job Aid*.

540 F.1.4. MANAGEMENT COSTS CHANGES

- 541 ▪ **HMGP Management Cost Interim Policy:** The HMA Guide includes FEMA Policy #104-11-1:
542 [Hazard Mitigation Grant Program Management Costs \(Interim\)](#) (November 14, 2018). The
543 interim policy applied to all major disasters declared on or after August 1, 2017.
- 544 ○ The HMA Guide incorporates the interim policy into [Part 10](#) and [Part 13](#). The Guide
545 supersedes the interim policy and any FEMA materials or content relating to it and is
546 hereby made final. The interim policy was developed to carry out amendments to section
547 324 of the Stafford Act by section 1215 of DRRRA. As a result, [44 CFR part 207](#), which
548 implemented section 324 prior to the amendment, and the chapters relating to HMGP
549 management costs in the 2015 HMA Guidance and Addendum, were no longer effective
550 and were superseded.
- 551 ○ FEMA has clarified how to calculate management costs based on the total amount of the
552 award, subapplication requirements, procedures for incremental obligation and closeout.
- 553 ○ To align the HMGP management cost policy with revisions to [2 CFR part 200](#), FEMA
554 simplified information regarding when a subrecipient or recipient can claim management
555 costs. In [Part 13](#), FEMA removed language that stated that management costs must be
556 claimed within 180 days after work is completed; within 180 days after the latest period
557 of performance of the last non-management cost HMGP project; or eight years from the
558 date of the disaster declaration. Instead, FEMA clarified that management costs must be
559 incurred within the subaward or award period of performance.
- 560 ▪ **Management Costs and Total Amount of the HMGP Award:** In [Part 10](#), FEMA clarified that, for
561 management cost calculation, the “total amount of the HMGP award” means the total
562 amount of contributions based on applications submitted when the HMGP application period
563 closes or when the total HMGP ceiling is determined, whichever is later. FEMA also clarified
564 that in cases where the recipient submits subapplications in excess of the HMGP ceiling,
565 FEMA will only calculate management costs on subapplication amounts up to the final HMGP
566 ceiling amount.
- 567 ▪ **Management Costs for Project Scoping/Advance Assistance:** The 2015 HMA Guidance and
568 Addendum indicated that FEMA does not provide management costs for purposes of project
569 scoping/advance assistance and noted that management costs may only be awarded in
570 conjunction with project or planning awards and subawards. FEMA has since removed the
571 restriction that management costs may only be awarded in conjunction with a project or
572 planning award or subaward and has specified that project scoping/advance assistance
573 subawards are eligible for management costs. See [Part 13](#) for more information.
- 574 ▪ **HMGP Management Costs:** For HMGP, FEMA clarified in [Part 10](#) that recipients cannot
575 receive an additional five percent for management costs if also acting as a subrecipient.

576 **F.2. Project and Activity Changes**

577 Substantial project and activity related changes included in the HMA Guide are outlined in this
 578 section.

- 579 ▪ **Eligibility of HMA Applications with Pre-Award Demolitions:** FEMA has generally found
 580 acquisitions, mitigation reconstruction and other mitigation projects that included properties
 581 with structures that had been demolished prior to application to FEMA as ineligible for HMA
 582 funding because of its interpretation of these costs as “pre-award costs.”

- 583 ○ **FEMA issued a policy clarification:** *Eligibility of Hazard Mitigation Assistance Applications*
 584 *with Pre-Award Demolitions* (August 26, 2019), specifying that when a property owner
 585 uses private funds to demolish an event-damaged structure—and the property had not
 586 been in an application submitted to FEMA at the time of the demolition—the demolition is
 587 not a “connected action” under the [National Environmental Policy Act, Public Law 91–](#)
 588 [190](#) (January 1, 1970) (i.e., is not connected to the FEMA federal project).

- 589 ○ Therefore, the demolition is not subject to FEMA review and approval for Environmental
 590 and Historic Preservation compliance, the costs of the demolition are not considered pre-
 591 award costs, and the demolition does not preclude a finding of project eligibility. The
 592 demolition must be in accordance with state and local legal requirements as well as any
 593 applicable federal law.

- 594 ○ The HMA Guide incorporates the policy clarification into [Part 4](#) and [Part 12](#). The Guide
 595 supersedes the policy clarification and any FEMA materials or content relating to it,
 596 unless stated otherwise.

- 597 ▪ **Eligibility of Non-Localized Flood Risk Reduction Projects under FMA:** In [Part 12](#), FEMA
 598 updated content to reflect that non-localized flood risk reduction projects may be eligible for
 599 FMA if the Administrator specifically determines in approving a mitigation plan that such
 600 activities are the most cost-effective mitigation activities for the National Flood Mitigation
 601 Fund. This change reflects revisions to the FMA regulations that became effective October 1,
 602 2021.

- 603 ▪ **Codes and Standards:** In [Part 11](#), FEMA provided more information on codes and standards
 604 as eligible HMA activities.

- 605 ▪ **Nature-Based Solutions:** In [Part 12](#), FEMA provided more information on the eligibility of
 606 nature-based solutions for many different project types and included an overarching
 607 philosophy to encourage these approaches.

- 608 ▪ **Acquisition Projects:** FEMA fully incorporated FEMA Policy #302-094-03: [Hazard Mitigation](#)
 609 [Assistance Acquisition Projects: Hydraulic Fracturing and Horizontal Directional Drilling](#) (July
 610 6, 2017), into [Part 12](#). The HMA Guide supersedes the policy and any FEMA materials or
 611 content relating to it, unless stated otherwise. FEMA also clarified recipient responsibilities

- 612 and requirements for post-closeout monitoring and reporting, including requirements to
613 review post-acquisition land uses based on [44 CFR § 80.19](#) in [Part 12](#).
- 614 ▪ **Mitigation Reconstruction Projects:** In [Part 12](#), FEMA clarified that it will no longer provide
615 square-foot cost estimates for mitigation reconstruction projects.
 - 616 ▪ **Sinkhole Projects:** FEMA issued a policy clarification: *Acquisition and Relocation or*
617 *Demolition of Structures on or near Sinkholes* (April 24, 2015), which clarified the eligibility
618 of acquisition and relocation of demolition projects when the structure is subject to sinkhole
619 hazards. The HMA Guide incorporates the policy clarification into [Part 12](#). The Guide
620 supersedes the policy clarification document and any FEMA materials or content relating to
621 it, unless stated otherwise.
 - 622 ▪ **Safe Room Projects:** In [Part 12](#), FEMA updated requirements to align with [FEMA P-361: Safe](#)
623 *Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe*
624 *Rooms, Fourth Edition* (April 2021), and the 2020 edition of [International Code Council \(ICC\)](#)
625 [500: ICC/National Storm Shelter Association Standard for the Design and Construction of](#)
626 *Storm Shelters*.
 - 627 ▪ **Tsunami Vertical Evacuation Refuge:** In [Part 4](#) and [Part 12](#), FEMA provided updated guidance
628 for tsunami vertical evacuation refuge projects.
 - 629 ▪ **Wind Retrofit for Non-Residential Buildings Projects:** In [Part 12](#), FEMA expanded the eligibility
630 of wind retrofits to non-residential structures under HMGP and BRIC.
 - 631 ▪ **Wildfire Mitigation Activities:** FEMA provided updated guidance for post-wildfire flood
632 prevention activities and fire suppression systems.
 - 633 ▪ **Beach Nourishment:** In the 2015 Guidance, beach nourishment was listed as an ineligible
634 mitigation activity. Beach nourishment is now eligible based on the FEMA Policy [FP 204-078-](#)
635 [112-1: Eligibility of Flood Risk Reduction Measures under the Hazard Mitigation Assistance](#)
636 *(HMA) Programs*, (June 27, 2014).
 - 637 ▪ **New Information on Mitigation Planning as an Eligible HMA Activity:** Planning is one of the
638 cornerstones of effective hazard mitigation activities. Therefore, FEMA included additional
639 guidance and resources in [Part 3](#) and [Part 11](#) regarding mitigation plan creation and updates
640 and planning-related activities. Also, FEMA strengthened language in [Part 2](#) to reinforce the
641 connection across planning and project identification, selection and scoping.
 - 642 ▪ **Aquifer Storage and Recovery:** In [Part 12](#), FEMA included more detailed information on the
643 eligibility of aquifer storage and recovery from the *Aquifer Storage and Recovery Fact Sheet*.
 - 644 ▪ **Flood Diversion and Storage:** In [Part 12](#), FEMA included more detailed information on the
645 eligibility of flood diversion and storage from the *Flood Diversion and Storage Fact Sheet*.

- 646 ▪ **Floodplain and Stream Restoration:** In [Part 12](#), FEMA included more detailed information on
647 the eligibility of floodplain and stream restoration from the *Floodplain and Stream*
648 *Restoration Fact Sheet*.
- 649 ▪ **Green Infrastructure Methods:** In [Part 12](#), FEMA included more detailed information on the
650 eligibility of green infrastructure methods from the *Green Infrastructure Methods Fact Sheet*.
- 651 ▪ **Planning Related Activities:** In [Part 11](#), FEMA included more detailed information on the
652 eligibility of planning-related activities from the *Hazard Mitigation Grant Program Planning-*
653 *Related Activities Fact Sheet*.

654 **F.3. General Changes**

655 General changes included in the HMA Guide are outlined in this section.

- 656 ▪ **HMA Guidance and Addendum:** The 2015 version of the HMA Guidance consisted of two
657 volumes: (1) The HMA Guidance, which contained the general principles applicable to all
658 HMA programs; (2) The Addendum, which listed eligible project types under all HMA
659 programs. Stakeholders indicated that having multiple documents and parts governing the
660 HMA programs can sometimes be confusing. The updated HMA Guide retains this distinction
661 between generally applicable principles and activity types. However, FEMA incorporated the
662 Addendum into the HMA Guide to improve usability.
- 663 ▪ **Job Aids, Fact Sheets and Policy Clarifications to Bolster Existing Guidance:** Since the
664 publication of the 2015 HMA Guidance and Addendum, FEMA has issued additional
665 guidance in the form of fact sheets, policy clarifications and job aids for HMA-eligible
666 activities, including aquifer storage and recovery, floodplain and stream restoration, flood
667 diversion and storage, and generators. FEMA incorporated the content of these guidance
668 documents into the project-specific parts of the HMA Guide throughout, and specifically in
669 [Part 12](#). Job aids describing eligible HMA activities remain in effect despite their inclusion in
670 the HMA Guide to the extent they are consistent with the content of the Guide. Additionally,
671 FEMA reorganized and bolstered the HMA Guide to further highlight capability and capacity
672 building, management costs and project specific criteria.
- 673 ▪ **Information Regarding “Frontloading HMA Program Eligibility Requirements”:** Information
674 from 2015 HMA Guidance and Addendum, Part II, “Frontloading HMA Program Eligibility
675 Requirements,” was incorporated in other parts of the document, as appropriate. Part II
676 information was moved to [Part 3](#), which outlines items that applicants and subapplicants
677 should consider before they apply, such as mitigation plan creation or updating, mitigation
678 activity selection, scoping, considering the assistance strategies, and activity eligibility
679 determinations. To the extent possible, FEMA eliminated the term “frontloading” to lessen
680 confusion over its meaning.
- 681 ▪ The following [DRRA provisions](#) were considered when developing the HMA Guide :

- 682 ○ 1204 Wildfire Prevention.
- 683 ○ 1205 Additional Activities: Wildfire and Windstorm.
- 684 ○ 1210(b) Federally Authorized Water Resources Development Project.
- 685 ○ 1215 Management Costs.
- 686 ○ 1231 Guidance on Hazard Mitigation – Acquisition.
- 687 ○ 1233 Additional Hazard Mitigation Activities – Earthquake Early Warning.
- 688 ○ 1234 National Public Infrastructure Pre-Disaster Hazard Mitigation.
- 689 ○ 1235(a) Additional Mitigation Activities.
- 690 ■ **Budget:** FEMA replaced most references to “cost estimate” with “budget” to align with the
691 definition in [2 CFR part 200](#).
- 692 ■ **Hazard Mitigation Officer:** The HMA Guide transitioned the “state hazard mitigation officer”
693 title to “hazard mitigation officer” to be more inclusive of tribes and territories.



Introduction Resources

- 695 ■ Whole Community Guiding Principle: <https://www.fema.gov/glossary/whole-community>
- 696 ■ Community Lifelines: <https://www.fema.gov/emergency-managers/practitioners/lifelines>

697 **Part 2. Overview of Hazard** 698 **Mitigation Assistance Programs**

699 The Federal Emergency Management Agency (FEMA) Hazard Mitigation Assistance (HMA) programs
700 support mitigation activities that reduce or eliminate potential losses to state, local, tribal and
701 territorial governments, fostering resilience against the effects of disasters.

702 FEMA administers HMA programs that provide funding for hazard mitigation activities including
703 mitigation projects and capability- and capacity-building. The following programs are covered in the
704 HMA Guide:¹⁷

- 705 1. Hazard Mitigation Grant Program (HMGP).
- 706 2. Hazard Mitigation Grant Program Post Fire (HMGP Post Fire).
- 707 3. Building Resilient Infrastructure and Communities (BRIC).
- 708 4. Flood Mitigation Assistance (FMA).

709 [Part 2](#) provides an overview of HMGP, HMGP Post Fire, BRIC and FMA including the statutory and
710 regulatory authorities that govern them. Unique aspects of each of these programs are detailed in
711 [Part 10](#). [Part 2](#) also provides an outline of authorities governing grants management, an integral part
712 of the administration of HMA programs. It also briefly outlines the roles and responsibilities of state,
713 local, tribal and territorial governments and who can benefit from the HMA programs.

714 **A. Hazard Mitigation Grant Program**

715 HMGP ensures that state, local, tribal and territorial governments have the financial opportunity to
716 plan for and implement mitigation measures that reduce the risk of loss of life and property from
717 future natural disasters during the reconstruction process following a disaster. HMGP is authorized
718 by section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act ([Stafford](#)
719 [Act](#))¹⁸ and implemented in regulations at [44 Code of Federal Regulations \(CFR\) § 206.430 through](#)
720 [44 CFR § 206.440](#).

¹⁷ The Pre-Disaster Mitigation (PDM) program is no longer covered in the HMA Program and Policy Guide. Congress may appropriate additional funds under Section 203 outside of the established HMA programs. FEMA intends to announce these funding opportunities through Notices of Funding Opportunity, which will specify the applicable program requirements.

¹⁸ Public Law 100-707 (November 23, 1988); amending the Disaster Relief Act of 1974, Public Law 93-288 (May 22, 1974); [42 United States Code \(U.S.C.\) § 5170c](#).

721 HMGP funding is available when authorized through a major disaster declaration. A governor,¹⁹ tribal
722 chief executive, or equivalent, may request that HMGP funding be available to the state or territory
723 that was affected by the declared disaster. Federally recognized tribal governments, through their
724 tribal chief executive,²⁰ may also submit a request for a disaster declaration within their impacted
725 areas and request that HMGP funding be made available to them under that declaration. Upon the
726 declaration of a major disaster or an emergency, the governor or tribal chief executive and the FEMA
727 regional administrator or designee shall execute a FEMA-State Agreement or FEMA-Tribal Agreement.
728 The Agreements state the understandings, commitments and conditions for assistance under which
729 FEMA disaster assistance shall be provided.²¹ For more information about the declaration process,
730 see [44 CFR §§ 206.31-49b](#) or visit FEMA’s [“How a Disaster Gets Declared”](#) webpage.

731 The amount of HMGP funding available to the applicant is based on the estimated total federal
732 assistance, subject to the sliding scale formula that FEMA provides for disaster recovery for each
733 disaster declaration.²² The formula provides for:

- 734 ▪ Up to 15 percent of the first \$2 billion of estimated aggregate amounts of disaster
735 assistance.
- 736 ▪ Up to 10 percent for amounts between \$2 billion and \$10 billion.
- 737 ▪ Up to 7.5 percent for amounts between \$10 billion and \$35.333 billion.

738 For states and federally recognized tribal governments with enhanced mitigation plans, the eligible
739 assistance is up to 20 percent for estimated aggregate amounts of disaster assistance, not to
740 exceed \$35.333 billion. For more information on how to advance mitigation planning to become
741 enhanced, visit FEMA’s [“Regulations and Guidance”](#) webpage.

742 The amount of HMGP funding available under the disaster declaration is apportioned among the
743 applicants if there is more than one applicant. For example, if a state and a federally recognized tribe
744 are applicants under the same disaster declaration, then the available HMGP funding is apportioned
745 among the state and the federally recognized tribe. The apportionment is based on the disaster
746 assistance provided within tribal land.

747 The period of performance for HMGP begins with the opening of the application period and ends no
748 later than 36 months from the close of the application period.

749 All applicants and subapplicants must have a FEMA-approved mitigation plan that has been adopted
750 by the jurisdiction in accordance with [44 CFR part 201](#) and applicable mitigation planning policies to

¹⁹ [42 U.S.C. § 5122\(5\)](#)

²⁰ [42 U.S.C. § 5122\(12\)](#)

²¹ [44 CFR § 206.44](#)

²² [44 CFR § 206.432\(b\)](#)

751 receive HMGP funding. A lapse in the FEMA-approved mitigation plan may result in a temporary hold
752 on obligations until the mitigation plan regains FEMA approval.

753 In addition, recipients are required to prepare an HMGP Administrative Plan, which must be
754 approved by FEMA. The HMGP Administrative Plan is a procedural guide that details how the
755 recipient will administer HMGP awards.

756 For more HMGP guidance, see [Part 10](#).

757 **B. Hazard Mitigation Grant Program Post Fire**

758 [HMGP Post Fire](#) assistance is available to help communities implement hazard mitigation measures
759 after wildfire disasters in any area that receives a Fire Management Assistance Grant (FMAG)
760 declaration.

761 Section 1204 of the Disaster Recovery Reform Act of 2018 ([DRRA](#))²³ amended section 404 of the
762 [Stafford Act](#) to allow FEMA to provide HMGP Post Fire assistance for hazard mitigation measures that
763 substantially reduce the risk of future damage, hardship, loss or suffering in any area affected by a
764 fire for which assistance was provided under section 420 of the Stafford Act.²⁴ Therefore, unlike
765 HMGP, the availability of HMGP Post Fire assistance is not contingent on a major disaster
766 declaration and is instead triggered by an FMAG declaration.²⁵ Eligible activities may be outside of
767 the declared area as long as the risk reduction benefits include the declared county or counties (e.g.,
768 watershed mitigation). If funding cannot be used in the declared areas, it may be made available
769 statewide.

770 States and territories that have received an FMAG declaration and certain federally recognized tribes
771 are eligible to apply for assistance under HMGP Post Fire.

772 Federally recognized tribes have multiple options for applying for HMGP Post Fire. Under an FMAG
773 declaration made to a state or territory, federally recognized tribes with burned land from the FMAG
774 declared event may request an HMGP award as recipients. Tribes (including federally recognized
775 tribes) may also apply through the state to FEMA as subapplicants. Subapplicants will follow the
776 standard HMGP subapplicant procedures consistent with program guidance including updates in
777 effect at the time of the FMAG declaration.

²³ Public Law 115-254 (October 5, 2018)

²⁴ As amended, section 420(d) of the [Stafford Act](#) states that “whether or not a major disaster is declared, the President may provide hazard mitigation assistance in accordance with section 404 [of the Stafford Act] in any area affected by a fire for which assistance was provided under this section.” Section 1204 of the DRRA also amended section 420 of the Stafford Act to parallel the change in section 404. section 420 of the Stafford Act authorizes FEMA to provide assistance under its FMAG program for the mitigation, management and control of any fire that threatens such destruction as would constitute a major disaster.

²⁵ [44 CFR § 204.21](#)

778 All applicants and subapplicants must have a FEMA-approved mitigation plan that has been adopted
779 by the jurisdiction in accordance with [44 CFR part 201](#) and applicable mitigation planning policies to
780 receive HMGP Post Fire funding. A lapse in the FEMA-approved mitigation plan may result in a
781 temporary hold on obligations until the mitigation plan regains FEMA approval. In addition, recipients
782 are required to prepare an HMGP Administrative Plan that must be approved by FEMA. The HMGP
783 Administrative Plan is a procedural guide that details how the recipient will administer HMGP Post
784 Fire awards.

785 Upon the declaration of a major disaster or an emergency, the governor or tribal chief executive and
786 the FEMA regional administrator or designee, shall execute a FEMA-State Agreement or FEMA-Tribal
787 Agreement. The Agreements state the understandings, commitments, and conditions for assistance
788 under which FEMA disaster assistance shall be provided.²⁶ For more information about the
789 declaration process, see [44 CFR §§ 206.31-49b](#) or visit FEMA’s [“How a Disaster Gets Declared”](#)
790 webpage.

791 A signed FEMA-State Agreement or FEMA-Tribal Agreement is required to implement the HMGP Post
792 Fire award following FMAG declarations. HMGP Post Fire is incorporated into the FMAG state or tribal
793 agreement.

794 For more HMGP Post Fire guidance, see [Part 10](#).

795 **C. Building Resilient Infrastructure and Communities**

796 [BRIC](#) is designed to promote a national culture of preparedness and public safety by encouraging
797 investments to protect our communities and infrastructure and strengthen our national mitigation
798 capabilities to foster resilience. The BRIC program seeks to fund effective and innovative activities
799 that will reduce risk, increase resilience, and serve as a catalyst to encourage the whole community
800 to invest in and adopt mitigation policies. BRIC supports state, local, tribal and territorial
801 governments as they undertake hazard mitigation activities, reducing the risks they face from
802 disasters and natural hazards.

803 BRIC was established as part of [section 1234 of DRRRA](#), which amended section 203 of the [Stafford](#)
804 [Act](#).²⁷ In its amended version, section 203 of the Stafford Act authorizes FEMA to provide technical
805 and financial assistance to state, local, tribal and territorial governments for hazard mitigation
806 measures that are cost-effective and designed to reduce injuries, loss of life and damage and
807 destruction of property. This includes damage to critical services and facilities.

808 The BRIC program is designed around the following guiding principles:

²⁶ [44 CFR § 206.44](#)

²⁷ [42 U.S.C. § 5133](#)

- 809 ▪ Support state and local governments, tribes and territories through capability- and capacity-
810 building to enable them to identify mitigation actions and implement projects that reduce
811 risks posed by natural hazards.
- 812 ▪ Encourage and enable innovation while allowing flexibility, consistency, and effectiveness.
- 813 ▪ Promote partnerships and enable high-impact investments to reduce risk from natural
814 hazards with a focus on critical services and facilities, public infrastructure, public safety,
815 public health and communities.
- 816 ▪ Provide a significant opportunity to reduce future losses and minimize impacts on the
817 Disaster Relief Fund (DRF).
- 818 ▪ Promote equity, including by helping members of disadvantaged groups and prioritizing 40
819 percent of the benefits to disadvantaged communities as referenced in Executive Order ([EO](#)
820 [14008](#): *Tackling the Climate Crisis at Home and Abroad* (January 27, 2021) in line with the
821 Administration’s Justice40 Initiative.
- 822 ▪ Support the adoption and enforcement of building codes, standards, and policies that will
823 protect the health, safety, and general welfare of the public, taking into account future
824 conditions, prominently including the effects of climate change, and have long-lasting
825 impacts on community risk reduction, including for critical services and facilities and for
826 future disaster costs.

827 States and territories that have had a major disaster declaration under the Stafford Act in the seven
828 years prior to the annual application period start date are eligible to apply for federal assistance
829 under BRIC as applicants. Federally recognized tribal governments can apply directly to FEMA for
830 federal assistance under BRIC as an applicant or through the state as a subapplicant. Federally
831 recognized tribal governments that have had a major disaster declaration under the Stafford Act in
832 the seven years prior to the annual application period start date—or are entirely or partially located
833 in a state that had a major disaster declaration in the seven years prior to the annual application
834 period start date—are eligible to apply as applicants. Local governments and tribes are eligible to
835 apply to states and territories for federal assistance under BRIC as subapplicants.²⁸ Individuals,
836 businesses and nonprofit organizations are not eligible to apply for BRIC assistance; however, an
837 eligible applicant or subapplicant may apply for funding on behalf of individuals, businesses and
838 nonprofit organizations.

839 The BRIC program distributes assistance annually and requires a cost share.²⁹ No later than 180
840 calendar days after each major disaster is declared under the Stafford Act and subject to assistance
841 availability, FEMA calculates the estimated aggregate amount of grants to be made under sections

²⁸ [2 CFR § 200.1](#) and [42 U.S.C. 5122\(7\)](#).

²⁹ Under section 203(h) of the [Stafford Act](#), the federal assistance may contribute up to 75 percent of the total cost of mitigation activities approved by FEMA. In certain cases, the federal assistance may increase to up to 90 percent.

842 403 (“Essential Assistance”), 406 (“Repair, Restoration, and Replacement of Damaged Facilities”),
843 407 (“Debris Removal”), 408 (“Federal Assistance to Individuals and Households”), 410
844 (“Unemployment Assistance”), 416 (“Crisis Counseling Assistance and Training”) and 428 (“Public
845 Assistance Program Alternative Procedures”) of the [Stafford Act](#) for the major disaster. FEMA may set
846 aside up to 6 percent of that amount from the Disaster Relief Fund for deposit into the National
847 Public Infrastructure PDM Fund to fund BRIC. The amount set aside must not reduce the amounts
848 otherwise made available under the referenced sections. FEMA assesses the amount of funding set
849 aside for BRIC annually and determines what portion of that amount will be available during the
850 following application period for the BRIC program. FEMA announces its determination in the annual
851 Notice of Funding Opportunity (NOFO) for the BRIC program.

852 All applicants and subapplicants must have a FEMA-approved mitigation plan that has been adopted
853 by the jurisdiction in accordance with [44 CFR part 201](#) and applicable mitigation planning policies by
854 the application deadline and at the time FEMA obligates funding for mitigation activities.³⁰ A lapse in
855 the FEMA-approved mitigation plan after the application date may result in a temporary hold on
856 obligations until the mitigation plan regains FEMA approval.

857 For more BRIC guidance, see [Part 10](#).

858 D. Flood Mitigation Assistance

859 [FMA](#) is a competitive program that provides funding to states, local communities, federally
860 recognized tribes and territories. Funds can be used for projects that reduce or eliminate the risk of
861 flood damage to structures insured by the National Flood Insurance Program (NFIP).

862 The [National Flood Insurance Reform Act of 1994](#)³¹ amended section 1366 of the [National Flood
863 Insurance Act of 1968](#)³² and directed FEMA to provide financial assistance in the form of grants for
864 planning and carrying out activities designed to reduce the risk of flood damage to structures
865 covered under contracts for flood insurance with the NFIP. The [Biggert-Waters Flood Insurance
866 Reform Act of 2012](#)³³ consolidated the Repetitive Flood Claims and Severe Repetitive Loss grant
867 programs into FMA. FMA regulations can be found at [44 CFR part 77](#).

868 FMA funding is available through the National Flood Insurance Fund for flood hazard mitigation
869 activities and plan development and is appropriated by Congress on a yearly basis. States, territories
870 and federally recognized tribes are eligible to apply for FMA assistance. NFIP participation is required
871 to be eligible for funding; subapplicants must also be in “good standing” with the NFIP. FEMA
872 publishes an up-to-date community status on the [“Community Status Book”](#) webpage. Local
873 governments and non-federally recognized tribes are considered subapplicants and must apply to

³⁰ For more information on applicable mitigation planning policies, see FEMA’s [“Hazard Mitigation Planning” webpage](#).

³¹ Public Law 103-325 (September 23, 1994)

³² Public Law 90-448 (August 1, 1968), as amended; 42 U.S.C. § 4104(c)

³³ Public Law 112-141 (July 6, 2012)

874 their applicant state, territory or federally recognized tribe. Annual priorities and other program
875 information is communicated through the NOFO.

876 The period of performance for FMA is outlined in the NOFO. The relevant fiscal year NOFO should be
877 referenced to verify conditions pertaining to the start, duration and end of the period of performance.

878 All applicants and subapplicants must have a FEMA-approved mitigation plan that has been adopted
879 by the jurisdiction in accordance with [44 CFR part 201](#) and applicable mitigation planning policies to
880 apply for and receive FMA funding.³⁴ A lapse in the FEMA-approved mitigation plan after the
881 application deadline may result in a temporary hold on obligations until the mitigation plan regains
882 FEMA approval. Other eligibility requirements include that mitigation activities must be technically
883 feasible, cost-effective and in the interest of National Flood Insurance Fund (i.e., the mitigation
884 activity will eliminate future payments from the National Flood Insurance Fund for severe repetitive
885 loss structures through an acquisition or relocation activity).³⁵





886 For more FMA guidance, see [Part 10](#).

887 [Table 2](#) provides a high-level summary of the programs covered by this guide.

³⁴ According to 44 CFR § 77.6(b), the approved mitigation plan must provide for reduction of flood losses to structures for which NFIP coverage is available. The FEMA-approved mitigation plan is required at the time of application and award.

³⁵ [41 U.S.C. § 4104c](#).

888 **Table 2. HMA Program Comparison**

HMA Program Comparison	 HMGP	 HMGP Post Fire	 BRIC	 FMA
Program Type	Post-disaster	Post-disaster	Pre-disaster	Pre-disaster
Funding Availability	Presidentially declared disaster	FMAG-declared disaster	6% set aside from federal post-disaster grant funding	Annual appropriations
Competitive?	No	No	Yes	Yes
Eligible Applicants	States, federally recognized tribes, territories and the District of Columbia (DC)	States, federally recognized tribes, territories and DC	States, federally recognized tribes, territories and DC	States, federally recognized tribes, territories and DC
Eligible Subapplicants	State agencies, local governments, tribes and private nonprofit (PNP) organizations	State agencies, local governments, tribes and PNP organizations	State agencies, local governments and tribes	State agencies, local governments and tribes
Hazard Mitigation Plan Requirement	Yes	Yes	Yes	Yes
NFIP Participation	Communities with projects in Special Flood Hazard Areas (SFHAs)	Communities with projects in SFHAs	Communities with projects in SFHAs	Subapplicants and properties

889

890 **E. Grants Management Regulations**

891 Grants management plays an integral part in implementing HMA programs and dictates the
892 procedures for FEMA officials responsible for administering funds during program implementation.

893 On December 26, 2014, the U.S. Department of Homeland Security adopted the *Uniform*
894 *Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*
895 (Administrative Requirements), which are codified in [2 CFR part 200](#).³⁶

896 [2 CFR part 200](#) generally applies to FMA and BRIC awards made on or after December 26, 2014,
897 and to all HMGP and HMGP Post Fire awards made under emergency or major disaster declarations
898 declared on or after December 26, 2014.³⁷

899 FEMA also issues regulations, NOFOs and other guidance for HMA programs based on a program's
900 authorizing statute. FEMA regulations have the force of law. These regulations, NOFOs and guidance
901 documents also outline program parameters and procedures, including various administrative
902 processes. While FEMA follows 2 CFR part 200 for general grant administrative requirements, cost
903 principles and single audit requirements, FEMA HMA-specific regulations take precedence over 2
904 CFR part 200 if the HMA regulation is more specific.

905 **F. Roles and Responsibilities of State, Local, Tribal and** 906 **Territorial Governments**

907 Unlike other federal assistance programs, individuals (such as property and business owners) or
908 private nonprofits may not apply directly for HMA funding with FEMA. It is the role of states, federally
909 recognized tribes and territories to apply for HMA funding in accordance with the instructions and
910 principles outlined in the HMA Guide.

911 Therefore, individuals or nonprofits interested in implementing mitigation activities must work with
912 their local governments (e.g., their local community planning office, emergency management office,
913 hazard mitigation office, or, in certain cases, with eligible nonprofit organizations) to develop
914 activities that could reduce property and other damages from future natural disasters in accordance
915 with their local hazard mitigation plan. These local governments (acting as subapplicants) apply to

³⁶ The Department of Homeland Security adoption of [2 CFR part 200](#) is codified in [2 CFR part 3002](#). These regulations incorporated, superseded and streamlined requirements from certain Office of Management and Budget (OMB) circulars. Upon the adoption of the Administrative Requirements in [2 CFR part 200](#), FEMA removed 44 CFR part 13 from the CFR.

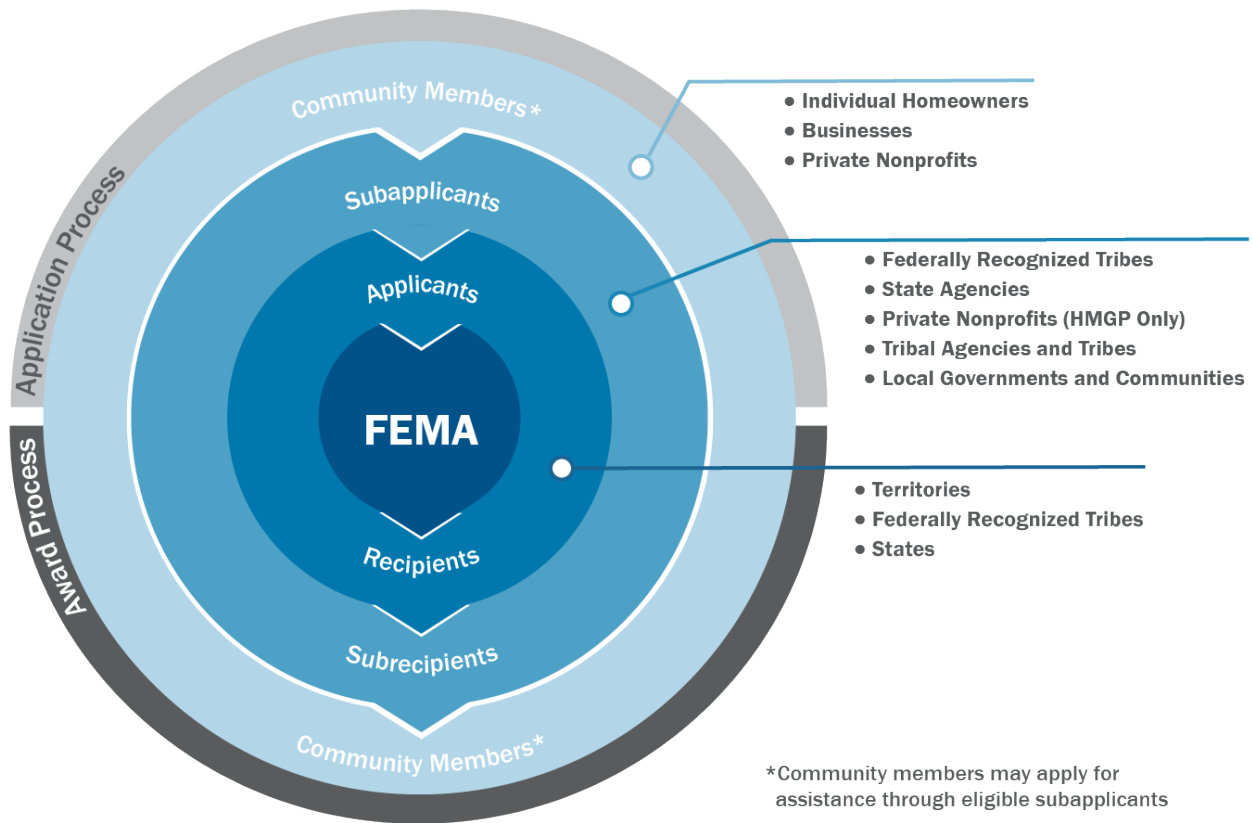
³⁷ The superseded OMB circulars and guidance, including 44 CFR part 13, continue to apply to all PDM and FMA awards made prior to December 26, 2014, or HMGP awards made under emergency or major disaster declarations declared before December 26, 2014. For details, see the 2015 HMA Guidance.

916 their state, federally recognized tribes or territory for consideration of being included in a FEMA HMA
 917 application.

918 The states, federally recognized tribes and territories (acting as applicants or recipients) have
 919 established mitigation priorities in their hazard mitigation plans. They are tasked with facilitating the
 920 development of subapplications from local jurisdictions (subapplicants or subrecipients) and to
 921 apply, on behalf of the local jurisdictions, to FEMA HMA programs, based on state, federally
 922 recognized tribal or territorial criteria and available assistance.

923 FEMA only accepts applications submitted by states, federally recognized tribes and territories
 924 (applicants). Upon receipt of the application, FEMA conducts an eligibility review to ensure
 925 compliance with federal laws, regulations and other directives before it approves a subapplication
 926 and grants a subaward. If the application is approved, funding is issued to applicants/recipients
 927 who, in turn, work with subapplicants/subrecipients to complete the activities included in the
 928 applications.

929 [Figure 1](#) outlines the application process from the perspective of the various stakeholders. The
 930 following sections outline in greater detail the roles and responsibilities of applicants/recipients and
 931 subapplicants/subrecipients involved in the HMA process.



932

933 **Figure 1. Roles of State, Local, Tribal and Territorial Entities Throughout the HMA Process**

934 **F.1. Applicants/Recipients**

935 States, federally recognized tribes and territories are eligible applicants for HMA programs. The
936 applicant is responsible for soliciting subapplications from eligible subapplicants and assisting in the
937 preparation, review and submission of eligible and complete subapplications to FEMA. Applicants
938 receive HMA awards. When assistance is awarded, the applicant then becomes the recipient and a
939 pass-through entity. A recipient receives a federal award directly from FEMA to carry out an activity
940 under an HMA program.³⁸ Pass-through entities are responsible for administering the award and
941 complying with program requirements and other applicable federal, state, tribal and territorial laws
942 and regulations. The pass-through entity is also responsible for the financial management of the
943 program and oversight of all approved activities.³⁹

944 To be eligible for HMA programs, applicants must have a [FEMA-approved state or tribal hazard](#)
945 [mitigation plan](#) that has been adopted by the jurisdiction in accordance with [44 CFR part 201](#) and
946 state or tribal mitigation planning policy. For more information on who or which entities are eligible
947 applicants, see [Part 4](#).

948 **F.2. Subapplicants/Subrecipients**

949 The subapplicant is a state-level agency, local government, federally recognized tribe or other eligible
950 entity that submits a subapplication for FEMA assistance to the applicant.⁴⁰ If HMA is awarded, the
951 subapplicant becomes the subrecipient and is responsible for managing the subaward and
952 complying with program requirements and other applicable federal, state, local, tribal or territorial
953 laws and regulations.

954 In most cases, subapplicants are required to have a FEMA-approved local or tribal mitigation plan
955 that has been adopted by the jurisdiction in accordance with [44 CFR part 201](#) and applicable
956 mitigation planning policies (local or tribal) to be eligible for HMA. Engagement in mitigation planning
957 enhances the identification of community-driven solutions, refines discussions of alternative issues,
958 and reduces ambiguity in applications. Extensive participation of stakeholders during the creation of
959 a mitigation plan generally results in more robust and fully refined selection of mitigation activities.

960 For additional information on who or which entity can be a subapplicant, see [Part 4](#). For additional
961 information on mitigation planning requirements, see FEMA’s mitigation planning [“Regulations and](#)
962 [Guidance”](#) webpage.

³⁸ [2 CFR § 200.1](#)

³⁹ [2 CFR § 200.1](#) and [2 CFR § 200.332](#)

⁴⁰ [2 CFR § 200.1](#)

963 **F.3. Federally Recognized Tribes**

964 For purposes of HMGP, HMGP Post Fire, BRIC and FMA, federally recognized tribes may apply to
965 FEMA directly as an applicant, or they may apply as a subapplicant through their state or territory.⁴¹

966 For the purposes of HMGP assistance, federally recognized tribes may obtain their own disaster
967 declaration consistent with section 401 of the Stafford Act.⁴² Federally recognized tribes can also be
968 recipients under a state’s declaration. If they choose to become a recipient under the state’s
969 disaster declaration, they must do so before the application period closes. In this case, the
970 assistance will be apportioned based on the damages the federally recognized tribe sustained from
971 the disaster on the tribal land. Finally, federally recognized tribes may choose to be subapplicants
972 under a state’s disaster declaration, independently of a state. If a state receives a declaration that
973 includes tribal lands, the tribal government may choose to be either a subrecipient or recipient for
974 HMGP funding.

975 If a federally recognized tribe is interested in requesting HMGP assistance as an applicant based on
976 the tribe’s own disaster declaration, the federally recognized tribe must submit a disaster declaration
977 request.

978 Once a tribal government receives a declaration, the tribal government becomes the recipient for the
979 administration of any assistance authorized by the President for the declared incident, which may
980 include the HMGP.

981 A tribal government acting as a recipient will assume the responsibilities of a state under [44 CFR](#)
982 [part 206, subpart N](#) for the purposes of administering the award.⁴³ Federally recognized tribes
983 interested in acting as a recipient must have a FEMA-approved tribal mitigation plan in accordance
984 with [44 CFR § 201.7](#). However, if a federally recognized tribe with a FEMA-approved tribal mitigation
985 plan coordinates the review of its plan with the state, the tribe also has the option to apply as a
986 subapplicant through that state or another federally recognized tribe.

987 To be eligible for HMA funding, tribal applicants and subapplicants must have a FEMA-approved
988 tribal mitigation plan that has been adopted by the tribe in accordance with [44 CFR § 201.7](#) and the
989 tribal mitigation planning policy.

990 For more information regarding tribal declarations, see FEMA’s [“How a Disaster Gets Declared”](#) and
991 [“Tribal Declarations Pilot Guidance” webpages](#).

⁴¹ [2 CFR § 200.1](#)

⁴² [42 U.S.C. § 5170](#)

⁴³ [44 CFR § 206.431](#)



Hazard Mitigation Assistance Programs Resources

992

993

- How a Disaster Gets Declared: <https://www.fema.gov/disasters/how-declared>

994

- Tribal Declarations Pilot Guidance: <https://www.fema.gov/disasters/tribal-declarations>

995

- Mitigation Planning Regulations and Guidance: [https://www.fema.gov/emergency-](https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning/regulations-guidance)

996

[managers/risk-management/hazard-mitigation-planning/regulations-guidance](https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning/regulations-guidance)

997

- Create a Hazard Mitigation Plan: [https://www.fema.gov/emergency-managers/risk-](https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning/create-hazard-plan)

998

[management/hazard-mitigation-planning/create-hazard-plan](https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning/create-hazard-plan)

999

- HMGP webpage: <https://www.fema.gov/grants/mitigation/hazard-mitigation>

1000

- HMGP Post Fire webpage: <https://www.fema.gov/grants/mitigation/post-fire>

1001

- BRIC webpage: [https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-](https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities)

1002

[communities](https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities)

1003

- FMA webpage: <https://www.fema.gov/grants/mitigation/floods>

1004

- NFIP Community Status Book: [https://www.fema.gov/flood-insurance/work-with-](https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book)

1005

[nfip/community-status-book](https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book)

1006 **Part 3. Subapplication**

1007 **Considerations and Scoping**

1008 **A. Overview**

1009 The Federal Emergency Management Agency (FEMA) encourages applicants and subapplicants to
1010 comprehensively evaluate actionable strategies to reduce vulnerabilities for the whole community as
1011 part of the state, local, tribal and territorial mitigation planning process. Applicants and
1012 subapplicants should identify all hazards, determine the risks and assess the vulnerabilities that
1013 threaten their jurisdictions to fully develop comprehensive hazard mitigation strategies. This section
1014 describes the steps to develop a successful mitigation subapplication.

1015 **A.1. Hazard Mitigation Assistance Subapplication Development Process**

1016 Every Hazard Mitigation Assistance (HMA) subapplication—whether it be for management costs,
1017 mitigation planning, project scoping or a mitigation project—goes through various phases before the
1018 subapplication is selected and awarded.

1019 The first steps in the subapplication development process generally present the best opportunity to
1020 develop viable activities to ensure subapplications can be successful. A subapplicant and an
1021 applicant may consider community needs, eligibility requirements, availability of project
1022 scoping/advance assistance or technical assistance and the requirements of later phases, such as
1023 project implementation, monitoring and closeout.

1024 Other key considerations should include equity for underserved communities, anticipated impacts of
1025 climate change, Environmental and Historic Preservation (EHP) and any other resilience topics
1026 relevant to the HMA application.

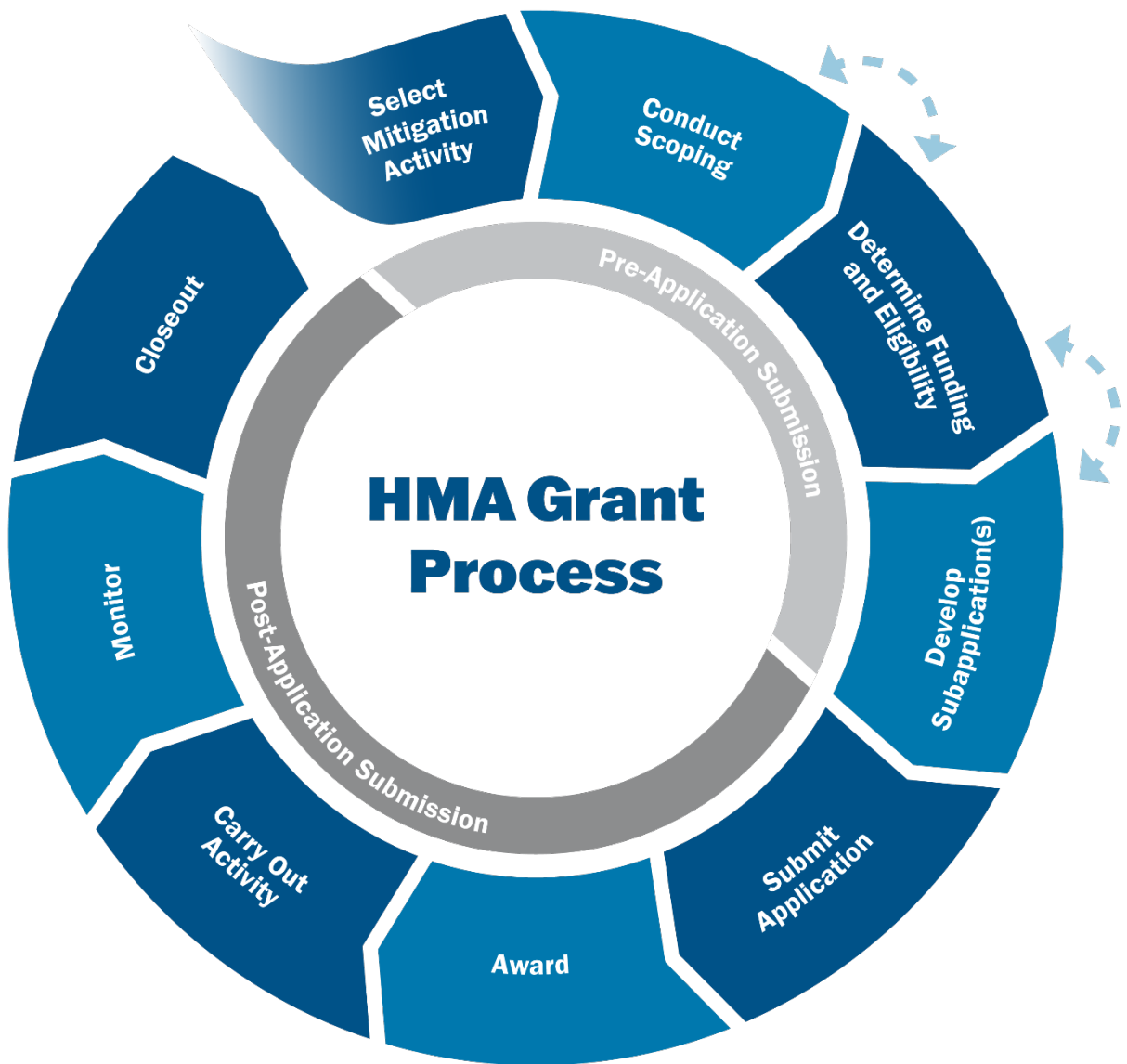
1027 Determining the best mitigation or resilience activity at the earliest point in the decision-making
1028 process increases the efficacy of the overall HMA program by expediting FEMA review and by
1029 reducing the need for Requests for Information. Reducing Requests for Information may result in
1030 quicker approval of the subaward.

1031 The HMA subapplication development process comprises the following steps:

- 1032 1. Select a mitigation activity.
- 1033 2. Conduct scoping.
- 1034 3. Determine funding strategy and consider eligibility requirements as well as other considerations.
- 1035 4. Develop the subapplication.

1036 Eligibility and other requirements are discussed in more detail in [Part 4](#).

1037 The steps following subapplication development, including review and implementation phases, are
 1038 described throughout the HMA Guide. [Figure 2](#) outlines the HMA process.



1039

1040

Figure 2. HMA Grant Process

1041 **B. Select a Mitigation Activity**

1042 The first step in the HMA process involves selecting potential activities based on the current
 1043 community needs. Selecting a mitigation activity is the link between the jurisdiction’s mitigation plan
 1044 and scoping, by allowing the applicant and subapplicant to select the most appropriate mitigation
 1045 activity that best addresses the vulnerabilities associated with identified hazard risk(s) while
 1046 considering current priorities, climate change and resilience. Activities could include capability- and
 1047 capacity-building activities, such as mitigation planning and project scoping, or mitigation projects.

1048 More information about eligible activities is in [Part 4](#). Proposed hazard mitigation activities funded by
1049 HMA are expected to be consistent with the jurisdiction’s mitigation plan, which is reviewed and
1050 updated every five years and sets long-term priorities. If selected activities are not consistent or in
1051 conformance with the mitigation plan, jurisdictions can review and update the plan and its priorities
1052 according to mitigation planning policy.

1053 The priorities outlined in the hazard mitigation plan are prioritized actions to mitigate natural threats
1054 in the jurisdiction. Selecting a mitigation activity involves identifying what activities can be
1055 accomplished in a specific year or award cycle. Contacting the applicant’s hazard mitigation officer or
1056 designated representative can be helpful in choosing which activities best fit the applicant’s
1057 priorities for that year or award cycle.

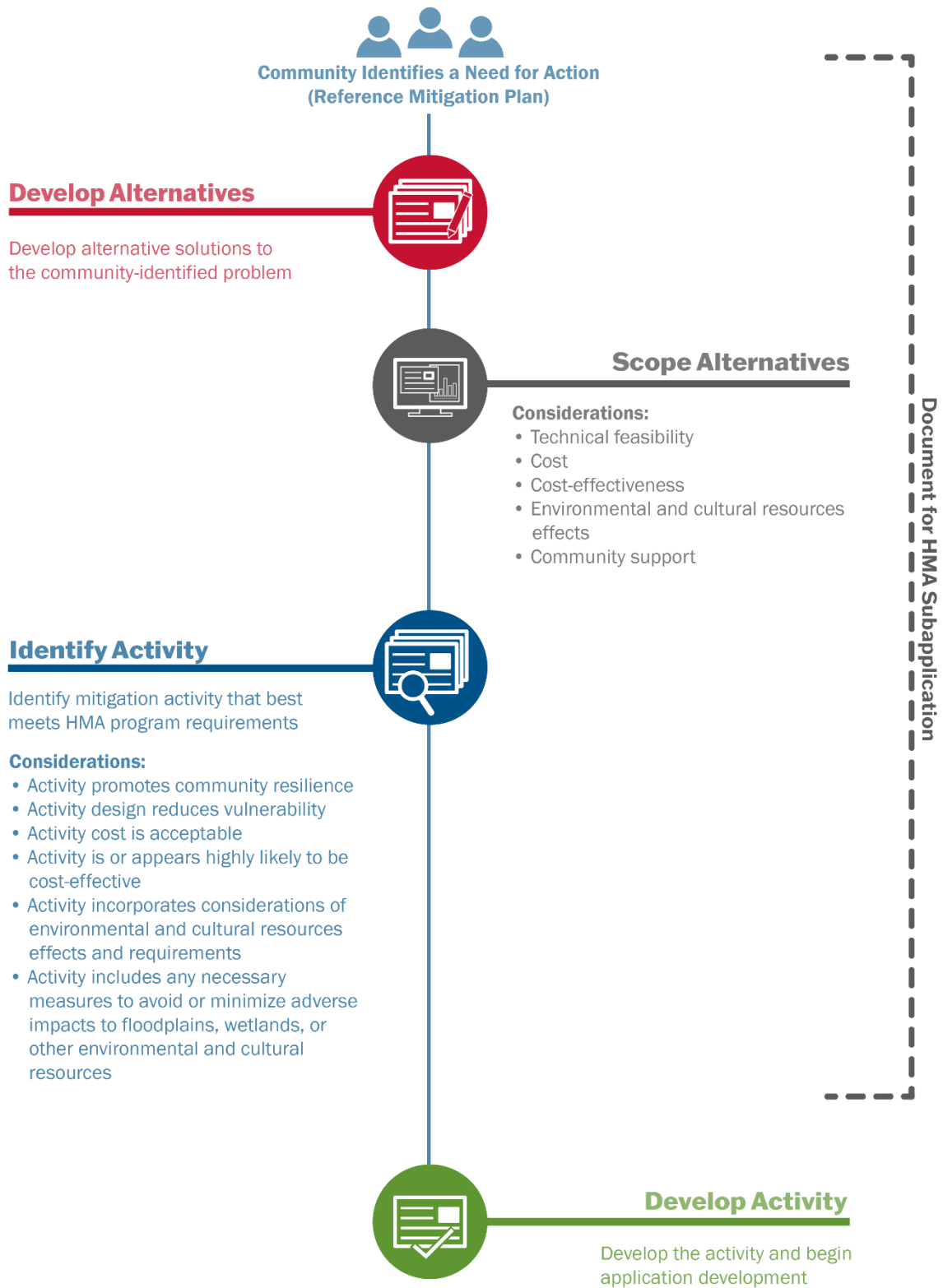
1058 **C. Conduct Scoping**

1059 Scoping can significantly impact the course an application or subapplication takes through the HMA
1060 process. Scoping is the process by which subapplicants evaluate and select a preferred mitigation
1061 alternative and develop a detailed outline of all aspects of the activity, including goals, all related
1062 activities, resources, timelines and deliverables, as well as the activity’s boundaries.

1063 The scoping process may include, depending on the activity type, an evaluation of technical
1064 feasibility, cost review, cost-effectiveness, as well as EHP or cultural resource considerations of the
1065 mitigation alternatives. Other considerations may include climate change impacts and racial equity.
1066 The scoping process results in the development of a preferred activity alternative that is then
1067 documented through the preparation of the application or subapplication.

1068 Eligible applicants and subapplicants that actively participate in and document the scoping process
1069 put themselves in a greater position for success during subapplication development. The information
1070 gathered in the scoping process serves as the basis for the development of a more detailed and
1071 robust scope of work, budget and EHP compliance components of the mitigation activity.

1072 During the scoping process, the applicant and subapplicant may encounter considerations such as
1073 technical feasibility, cost-effectiveness and EHP requirements that necessitate the refinement or
1074 adjustment of the mitigation activity. In these situations, the reason for the refinement or re-scoping
1075 should be fully documented and included with the subapplication. [Figure 3](#) details considerations
1076 during each step of the scoping process.



1077

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Figure 3. Scoping Process

1079 Applicants and subapplicants should consider the whole range of program requirements at the
1080 beginning stages of activity scoping. Addressing HMA program requirements at the earliest stage
1081 possible in the decision-making process is important because it can lead to enhanced project
1082 scoping and development as well as prevent delays later in the subaward lifecycle.

1083 The HMA program requirements comprise the following topics:

- 1084 ▪ Hazard mitigation plan requirements.
- 1085 ▪ Technical feasibility and effectiveness.
- 1086 ▪ Floodplain management and protection of wetlands.
- 1087 ▪ EHP review and compliance.
- 1088 ▪ Cost-effectiveness.
- 1089 ▪ Cost review.

1090 For specific information on scoping local hazard mitigation plans, see the FEMA job aid
1091 [Considerations for Local Mitigation Planning Grant Subapplications](#) (March 2021). For specific
1092 information on scoping tribal hazard mitigation plans, see the FEMA job aid [Tribal Mitigation](#)
1093 [Planning and HMA Grant Application Development](#) (March 2021).

1094 **D. Determine Funding Strategies and Eligibility**

1095 **Requirements**

1096 HMA programs offer options to assist applicants and subapplicants during the project scoping and
1097 development process. The programs may also help applicants and subapplicants include mitigation
1098 in Public Assistance (PA) projects and other recovery activities.

1099 **D.1. Project Scoping/Advance Assistance**

1100 Applicants and subapplicants may use HMA for project scoping/advance assistance activities.
1101 Eligible activities include the development of mitigation strategies, cost-share strategies and data
1102 gathering (including for EHP compliance considerations) to prioritize, select and develop complete
1103 and timely HMA applications. Project scoping/advance assistance activities can help applicants and
1104 subapplicants develop eligible and complete applications that include a feasible project budget and
1105 appropriate project milestones.

1106 Under HMGP and HMGP Post Fire, project scoping/advance assistance allows an advance of up to
1107 25 percent of the HMGP ceiling or \$10 million (whichever is less) to applicants/subapplicants to

1108 accelerate the implementation of the HMGP.⁴⁴ While eligible activities for project scoping/advance
1109 assistance are limited to those described here, post-disaster activities and projects that need to
1110 begin early in the recovery process can be submitted to FEMA under HMGP and HMGP Post Fire as
1111 part of the 30-day or six-month assistance increment request. See [Part 10](#) for additional information.

1112 Project scoping eligibility for Building Resilient Infrastructure and Communities (BRIC) and Flood
1113 Mitigation Assistance (FMA) may be found in each program’s respective Notice of Funding
1114 Opportunity (NOFO).

1115 For more information regarding project scoping/advance assistance, see [Part 11](#).

1116 **D.2. Management Costs**

1117 FEMA provides assistance under HMGP, HMGP Post Fire, BRIC and FMA for management costs
1118 incurred in the administration of HMA.

1119 For HMGP and HMGP Post Fire, recipients may be reimbursed not more than 15 percent of the total
1120 amount of the award; not more than 10 percent may be used by the recipient and 5 percent by the
1121 subrecipient.⁴⁵ FEMA will provide 100 percent federal assistance for management costs based on
1122 the total amount of the award incurred up to the rates established above.⁴⁶

1123 For BRIC and FMA, the amount of management costs available and the level of FEMA assistance for
1124 management costs are identified in the NOFO. If any requirements in the HMA Guide conflict with the
1125 NOFO, the requirements in the NOFO take precedence.

1126 For additional details regarding management costs, see [Part 10](#) and [Part 13](#).

1127 **D.3. Phased Projects**

1128 Phased projects are allowable under HMGP, HMGP Post Fire and BRIC. FMA does not allow for
1129 phased projects.

1130 Phased projects are used when it is beyond the subapplicant’s technical and financial resources to
1131 provide the complete technical information required for a full eligibility or EHP review of a complex
1132 project. In this instance, the subapplicant can apply for assistance to develop a complete body of
1133 technical data, which may include an engineering, EHP or feasibility study (also referred to as a
1134 Phase I study).

1135 The Phase I study provides FEMA with a technical body of information that is mutually agreed on by
1136 the subapplicant, the applicant and FEMA to determine project eligibility. If the results of the Phase I
1137 study indicate the project meets HMGP, HMGP Post Fire or BRIC requirements, the project would

⁴⁴ Section 404 of the [Stafford Act, 42 United States Code \(U.S.C.\) § 5170c](#).

⁴⁵ Section 324 of the [Stafford Act, 42 U.S.C. § 5165b](#)

⁴⁶ [FEMA Policy #104-11-1: Hazard Mitigation Grant Program Management Costs \(Interim\)](#) (November 14, 2018)

1138 then be eligible for construction assistance under a Phase II approval. Phase I study assistance is
1139 part of the project’s total estimated cost and is subject to HMGP, HMGP Post Fire or BRIC cost-share
1140 requirements.

1141 The use of a Phase I study should be limited to complex projects that require technical or EHP data
1142 beyond the scope of what is generally required for a typical project. Phased projects are used when a
1143 subapplicant has a preliminary plan or concept where FEMA can make an initial eligibility
1144 determination. The preliminary plan or concept provides a guideline that the subapplicant can use to
1145 develop cost estimates and final construction plans and other required analysis to determine
1146 eligibility (such as Benefit-Cost Analysis [BCA] and EHP) before moving forward to Phase II
1147 construction. Both Phase I and Phase II are intended to be completed within the award period of
1148 performance. FEMA may use the pre-screening process to collect data needed to determine the
1149 eligibility of the project before committing additional funding for project design.

1150 All applicants and subapplicants must follow the requirements under the procurement regulations.⁴⁷
1151 If applicants and subapplicants propose to use contract support for subapplication development
1152 and/or design and construction phases, they should review procurement and conflict of interest
1153 regulations to ensure they can comply with those requirements. More information about
1154 procurement can be found in [Part 4](#).

1155 **D.3.1. PHASED PROJECT: PRE-SCREENING PROCESS TO DETERMINE ELIGIBILITY**

1156 The purpose of the pre-screening process is to ensure that the Phase I scope of work is enough to
1157 allow FEMA to review the project and determine eligibility and meet other program requirements.

1158 The recipient must submit a subapplication, using the project specific information in [Part 12](#), that
1159 provides all available preliminary design and site data. While a phased project may not have all the
1160 required information, the scope of work must address how any gaps will be addressed in Phase I.
1161 The applicant and subapplicant must select the appropriate project code for the Phase I study within
1162 the electronic application system for proper project tracking.

1163 The project must meet the following pre-screening criteria for a conditional Phase I approval to verify
1164 they meet the following criteria:

- 1165 ▪ **Hazard mitigation plan:** The proposed project must be in conformance with the mitigation
1166 plan.
- 1167 ▪ **Justification for selection of the proposed project:** Justification must be provided for the
1168 selection of the proposed solution after consideration of a range of options. Minimum criteria
1169 for a solution should include:

⁴⁷ [2 Code of Federal Regulations \(CFR\) §§ 200.317-327](#)

- 1170 ○ Analysis on why the selected approach was selected and at least two alternative
1171 proposals and why they were not selected.
- 1172 ○ Performance based criteria establishing the level of protection for the long-term solution
1173 along with the anticipated remaining risk after the proposed project is complete.
- 1174 ○ List of missing technical data to be collected and developed during Phase I, including a
1175 vulnerability assessment, engineering practices, established codes, standards, modeling
1176 techniques and best practices to which the design will conform.
- 1177 ○ Proposed conceptual drawings or design.
- 1178 ○ List of minimum deliverables and milestones to be completed during Phase I.
- 1179 ■ **Scope of work:** The scope of work must identify the steps and deliverables needed to
1180 complete Phase I and preliminary actions to complete Phase II. Based on the pre-screening
1181 review, FEMA may use the Request for Information procedures to adjust the scope of work to
1182 ensure all program requirements can be addressed. The Phase II scope of work can be
1183 adjusted as part of the Phase II approval process.
- 1184 ■ **Budget:** A detailed budget must be included in the subapplication. The estimated costs
1185 within this budget must identify all line items associated with the Phase I study and an
1186 estimate for the Phase II costs. The Phase II estimate can be adjusted based on the findings
1187 of the Phase I study through the budget amendment process.
- 1188 ■ **Potential schedule and milestones:** The project demonstrates that it can likely be completed
1189 within the period of performance allowed by the program.
- 1190 ■ **Potential cost-effectiveness:** The project must demonstrate potential cost-effectiveness
1191 based on a preliminary assessment of anticipated project benefits and cost. The
1192 subapplicant must be aware that this preliminary assessment is solely for the purpose of the
1193 Phase I pre-screening process and is not the final cost-effectiveness determination. A
1194 preliminary BCA is required at the time of subapplication. This should be based on feasible
1195 assumptions and available data regarding risk and should be determined by using the latest
1196 version of the [BCA Toolkit](#).
- 1197 ■ **Other relevant technical data:** The subapplicant must provide available data, including
1198 hydrologic and hydraulic data, based on existing models and other relevant technical data,
1199 as appropriate.
- 1200 ■ **EHP review:** FEMA will complete an initial review and provide technical assistance to identify
1201 major EHP compliance issues and information needs. Additional EHP review by FEMA of the
1202 revised project design is required before Phase II approval. When a project is submitted for
1203 phased review and **the** Phase I scope of work is limited to developing engineering and
1204 architectural design plans, the Phase I review will likely meet a specified categorical

1205 exclusion (CATEX), which is a type of work categorically excluded from the National
 1206 Environmental Policy Act⁴⁸ review. If applicable, FEMA will document the CATEX to a
 1207 proposed action in a Record of Environmental Consideration, which would record that the
 1208 Phase I aligns with the scope of the specified CATEX and documents any extraordinary
 1209 circumstances.⁴⁹ Also, Phase I must comply with other EHP requirements such as section
 1210 106 of the National Historic Preservation Act,⁵⁰ section 7 of the Endangered Species Act,⁵¹
 1211 and [Executive Order \(EO\) 11988](#), *Floodplain Management* (May 24, 1977) as amended by
 1212 [EO 13690](#), among others. FEMA will provide technical assistance during the Phase I review
 1213 to identify any potential EHP compliance issues, specify any information that would be
 1214 needed to conduct a Phase II review, and determine what level of National Environmental
 1215 Policy Act review is applicable to the action. Applicants must address EHP requirements
 1216 before construction can be funded. It is important for applicants to identify all data needs
 1217 during the pre-screening process and update the Phase I scope of work to ensure they are
 1218 completed.

1219 If required, FEMA will use the Request for Information procedures to request adjustments to the
 1220 subapplication Phase I scope of work, schedule and budget so that it includes all required elements
 1221 to complete Phase I.

1222 **D.3.2. PHASE I: CONDITIONAL APPROVAL**

1223 The applicant and FEMA may approve projects meeting the above pre-screening requirements for
 1224 technical assistance under a Phase I conditional approval. FEMA and the applicant must coordinate
 1225 closely to ensure mutual concurrence on all data and technical information as the Phase I technical
 1226 review process proceeds. The sequence for the process is as follows:

- 1227 ▪ **Other relevant technical data:** If appropriate, the applicant and FEMA review the hydrologic
 1228 and hydraulic or other technical data provided by the subapplicant.

- 1229 ▪ **Preliminary engineering design:** Based on the technical data, the subapplicant develops a
 1230 preliminary engineering and design layout and budget with project-specific technical
 1231 assistance from the applicant and FEMA.

- 1232 ▪ **Compliance with EO 11988 as amended by EO 13690:** If applicable, based on the technical
 1233 data and revised engineering design, the subapplicant must demonstrate the project’s
 1234 compliance with floodplain management requirements under [EO 11988](#), as amended by
 1235 EO 13690. If a Flood Insurance Rate Map amendment or revision is necessary, the applicant
 1236 and FEMA provide the subapplicant with technical assistance to meet this requirement.

⁴⁸ Public Law 91-190 (January 1, 1970)

⁴⁹ If warranted by the extraordinary circumstances analysis, FEMA will conduct an Environmental Assessment.

⁵⁰ Public Law 89-665 (October 15, 1966), as amended; [36 CFR part 800](#)

⁵¹ Public Law 93-205 (December 28, 1973), as amended; 16 U.S.C. § 1531

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- **Refinement of the cost-effectiveness assessment:** Based on the revised design, budget and calculations made by the BCA Toolkit, the applicant and FEMA must refine the preliminary assessment of cost-effectiveness conducted prior to Phase I approval. This will result in a final benefit cost ratio to evaluate the project’s cost-effectiveness, which must include all the project costs, including Phase I. The BCA, developed through the BCA Toolkit, should be supported by available information including:
 - Risk information supporting the pre-mitigation losses (e.g., Flood Insurance Rate Maps/Flood Insurance Study, loss history, structural risk assessments).
 - Mitigation effectiveness information supporting the risk reduction (e.g., commitment to a design standard,⁵² level of protection [100-year recurrence interval]).
 - Cost estimate for the anticipated project cost (including design costs) along with supporting assumptions.
 - **Key assumptions:** The applicant describes the key assumptions, along with justification or rationale for these assumptions, regarding risk, project effectiveness and cost.
 - **EHP review:** The applicant and FEMA must conduct a review of the revised project design to ensure EHP compliance. The project must meet EHP requirements before Phase II is approved.

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1254 After Phase I work has been completed and submitted to FEMA, FEMA will review the data to

1255 determine if the project remains eligible to move forward to Phase II. If the project does not meet

1256 eligibility requirements, FEMA will notify the recipient and proceed with closing out the subaward.

1257 Phase II funding will not be obligated.

1258 If after reviewing the Phase I data, the recipient decides they do not want to complete Phase II, they

1259 must submit a change in budget request justifying their request to withdraw the project so they can

1260 closeout the award. For construction awards, prior written approval from FEMA is required for budget

1261 revisions.⁵³

1262 **D.3.3. PHASE II: APPROVAL – CONSTRUCTION PROCESS**

1263 If FEMA determines the project to be eligible, technically feasible, cost-effective and compliant with

1264 EHP requirements under the Phase I technical review, FEMA may then approve the project for

1265 construction under Phase II.

⁵² Such as [American Society of Civil Engineers Standard 24](#), *Flood Resistant Design and Construction* (2015) or [FEMA P-361](#), *Safe Rooms for Tornadoes and Hurricanes* (April 2021).

⁵³ [2 CFR § 200.308](#)

1266 **D.4. Pre-Award Costs**

1267 Pre-award costs directly related to developing a subapplication that are incurred prior to the date of
1268 the grant award are allowed, subject to FEMA approval at the time of the award. Pre-award costs
1269 may be incurred, for example, when gathering National Environmental Policy Act data or developing a
1270 BCA, preparing design specifications, or when holding workshops or meetings related to reviewing
1271 proposed alternatives and designs. In general, pre-award costs are eligible for activities that involve
1272 no commitment of resources other than staffing and associated funding.

1273 Pre-award costs may be cost shared or applicants and subapplicants may identify them as their non-
1274 federal cost share. For more information see [Part 4](#).

1275 Costs associated with implementation of proposed projects in the submitted application or
1276 subapplication that are incurred prior to the date of the award are not allowed. Activities initiated or
1277 completed prior to the date of the grant are generally not eligible.

1278 Costs for activities, such as ground disturbance or construction, or activities that would affect historic
1279 properties and/or threatened and endangered species and that are initiated or completed outside of
1280 the application period and period of performance are not eligible. In addition, any ground
1281 disturbance or construction activity completed before FEMA approval is not allowed and therefore
1282 their associated costs are not eligible. Projects initiated or completed prior to the federal award or
1283 full approval of the project are not eligible.⁵⁴

1284 Pre-award management costs count toward the five percent limit for subrecipient management
1285 costs. Eligible management costs activities include developing the application or subapplication,
1286 preparing the BCA and gathering EHP data.

1287 To be eligible for HMA, pre-award costs must be identified as separate line items in the budget of the
1288 subapplication and cannot have been funded by another project, award or program. Applicants and
1289 subapplicants may identify such pre-award costs as their non-federal cost share. Applicants and
1290 subapplicants who are not selected for awards or subawards will not receive reimbursement for the
1291 corresponding pre-award costs.

1292 For HMGP and HMGP Post Fire, eligible pre-award costs are those incurred after the date when
1293 HMGP is authorized, which is generally the date of the major disaster declaration.

1294 For BRIC and FMA, the period of eligibility for pre-award costs is addressed in the NOFO. For more on
1295 project scoping/advance assistance and management costs, see [Part 13](#) of this document.

⁵⁴ For HMGP, see [44 CFR § 206.434\(d\)\(2\)](#) and [44 CFR § 206.439\(c\)](#); for FMA, see [44 CFR § 77.7\(b\)](#); for BRIC, see the most current NOFO.

1296 E. HMGP and PA Mitigation

1297 During the activity development phase, applicants and subapplicants should consider two types of
 1298 FEMA HMA available post-disaster: HMGP assistance under section 404 of the [Stafford Act⁵⁵](#) and PA
 1299 Mitigation under section 406 of the Stafford Act.⁵⁶ PA Mitigation is often also referred to as “406
 1300 Mitigation” or “406 PA Mitigation.”

1301 HMGP and PA Mitigation are two distinct assistance sources but can sometimes be used together to
 1302 more completely fund a hazard mitigation project and promote resilience. While applicants and
 1303 subapplicants have the discretion to apply for PA Mitigation or HMGP (while the HMGP application
 1304 period is open), FEMA encourages applicants and subapplicants to maximize assistance by first
 1305 applying for all available PA Mitigation.

1306 To be eligible for PA Mitigation, the mitigation measures must reduce future damage to the facility,
 1307 be cost-effective, technically feasible and compliant with EHP laws, regulations and executive orders.
 1308 Generally, PA-eligible mitigation measures are intended to protect the damaged portion(s) of the
 1309 facility. If the applicant proposes mitigation measures that are distinct and separate from the
 1310 damaged portion(s) of the facility, FEMA evaluates the proposal and determines eligibility on a case-
 1311 by-case basis. FEMA considers how the mitigation measures protect the damaged portion(s) of the
 1312 facility and whether the mitigation measures are reasonable based on the extent of the damage.

1313 Applicants may use both PA Mitigation and HMGP assistance to implement mitigation measures on
 1314 the same facility but not for the same work. Applicants cannot use assistance from one of these
 1315 mitigation programs to meet the non-federal cost share of work funded under the other mitigation
 1316 program. A combination of PA and HMGP assistance may be appropriate where PA Mitigation is used
 1317 to provide protection to portions of a facility that were damaged by a declared disaster and HMGP
 1318 assistance is used to protect undamaged portions of the facility or a nearby, undamaged facility (see
 1319 examples in callout box).

1320 FEMA Policy [FP 104-009-2: Public Assistance Program and Policy Guide, Version 4](#) (June 1, 2020)
 1321 provides further details on PA Mitigation.

1322 Examples of HMGP and PA Mitigation

1323 The following project examples illustrate how an applicant or subapplicant can use both HMGP and
 1324 PA mitigation to maximize the protection of a facility or facilities from future damage:

- 1325 ■ A school damaged by wind can be repaired and mitigated with shutters or impact-protective
 1326 glazing using PA assistance and enhanced with an HMGP-assisted safe room.

⁵⁵ [42 U.S.C. § 5170c](#)

⁵⁶ [42 U.S.C. § 5172](#)

- 1327 ▪ Damaged portions of a building in a seismic risk zone damaged by flooding can be repaired
1328 and mitigated with dry floodproofing and seismic upgrades using PA Mitigation. On a case-by-
1329 case basis, PA Mitigation funding may also be available for the undamaged portions of the
1330 facility. If the undamaged portions of the facility are not eligible for PA Mitigation, HMGP funds
1331 may be used to protect those undamaged portions of the building from flood and seismic
1332 hazards.
- 1333 ▪ While a road damaged by a landslide is being repaired and mitigated using PA, HMGP
1334 assistance can be used to bury undamaged aboveground power lines running along the road.

1335 In addition to mitigating damages to a facility, PA Mitigation and HMGP can be used for post-disaster
1336 building code enforcement. As part of PA Mitigation, FEMA is authorized to provide assistance to
1337 state and local governments for building code and floodplain administration and enforcement,
1338 including inspections for substantial damage compliance, for a period of not more than 180 days
1339 after the major disaster is declared. More information can be found in FEMA Policy [FP 204-079-01](#):
1340 *Building Code and Floodplain Management Administration and Enforcement* (October 15, 2020).

1341 HMGP can provide assistance for post-disaster building code activities to continue past the 180-day
1342 PA Mitigation limit (see [Part 11](#)). If a recipient or subrecipient receives PA Mitigation assistance for
1343 building code enforcement and administration activities and intends to continue these activities after
1344 PA Mitigation is no longer available, they should submit a subapplication under HMGP as soon as
1345 possible. This way, the subapplication can be reviewed and approved before PA Mitigation expires.

1346 If a subapplicant is seeking both HMGP and PA Mitigation, HMGP subapplications still must meet
1347 HMGP program requirements, including submission in accordance with HMGP program timelines,
1348 consistency with hazard mitigation plans, and approval by the hazard mitigation officer or designated
1349 representative. Evaluating opportunities to leverage HMGP and PA Mitigation can facilitate project
1350 scoping and development. Additionally, exploring these opportunities can maximize the use of PA
1351 Mitigation for disaster-damaged facilities while preserving limited HMGP assistance for use on other
1352 activities. If HMGP and PA Mitigation is considered to fund a mitigation activity, applicants and
1353 subapplicants should also assess potential duplication of benefits or funding issues. For more on
1354 duplication of benefits, see [Part 4](#).

1355 F. Cost Review

1356 Conducting a cost review at the earliest possible stage allows for improved activity scoping and
1357 development and facilitates FEMA's review. All costs included in the subapplication should be
1358 reviewed to ensure they are necessary, reasonable and allocable along with being consistent with
1359 the provisions of [2 Code of Federal Regulations \(CFR\) §§ 200.402-411](#).

1360 G. Cost-Effectiveness

1361 By statute and regulations, mitigation activities under HMGP, HMGP Post Fire, BRIC and FMA must
1362 be cost-effective; specific requirements for each program can be found in [Part 10](#). FEMA generally

1363 assesses the cost-effectiveness of hazard mitigation projects through a BCA—a quantitative analysis
1364 used to assess the cost-effectiveness of a hazard mitigation measure by comparing the project’s
1365 avoided future damages to the costs over the project lifetime. Considering cost-effectiveness at the
1366 earliest possible stage of the decision-making process can facilitate project scoping and improve
1367 project design. For more information on cost-effectiveness, see [Part 5](#).

1368 H. Technical Feasibility and Effectiveness

1369 Mitigation projects submitted to HMA programs must be both feasible and effective at mitigating the
1370 risks of the hazard for which the projects are designed. The feasibility of a project is demonstrated
1371 through conformance with accepted engineering practices, established codes, standards, modeling
1372 techniques or best practices. Effective mitigation measures funded under HMA should provide a
1373 long-term or permanent solution and should consider changing climate and weather conditions,
1374 development, settlement and demographic patterns, as appropriate. Considering technical feasibility
1375 and effectiveness during the scoping process facilitates project development.

1376 I. Environmental and Historic Preservation Review and 1377 Compliance

1378 Subapplicants can leverage EHP requirements in the scoping process to develop resilient mitigation
1379 projects and avoid, minimize and mitigate any adverse effects of mitigation projects on natural and
1380 cultural resources and on minority and low-income populations and tribes. All projects proposed for
1381 FEMA funding must comply with EHP laws, regulations and executive orders. [The National
1382 Environmental Policy Act](#) requires FEMA and other federal agencies to assess the environmental
1383 impacts of proposed federal actions prior to making decisions or funding projects. Like the National
1384 Environmental Policy Act, section 106 of the National Historic Preservation Act requires federal
1385 agencies to consider the effect of their actions on historic properties.⁵⁷

1386 FEMA must also ensure a proposed project is compliant with other federal laws, regulations, and
1387 executive orders such as the Federal Water Pollution Control Act (Clean Water Act),⁵⁸ the
1388 Endangered Species Act, [Executive Order \(EO\) 11988](#), *Floodplain Management* (May 24, 1977) as
1389 amended by [EO 13690](#) and [EO 11990: Protection of Wetlands](#) (May 24, 1977). [EO 12898: Federal
1390 Actions to Address Environmental Justice in Minority Populations and Low-Income Populations](#)
1391 (February 11, 1994), requires federal agencies to consider disproportionately high and adverse
1392 effects on minority and low-income communities related to federal programs, policies and activities.
1393 Environmental justice is considered during the National Environmental Policy Act process, when
1394 individual projects are reviewed or programmatic actions are considered. Furthermore, [EO 13985:
1395 Advancing Racial Equity and Support for Underserved Communities Through the Federal
1396 Government](#) (January 20, 2021) requires the federal government to pursue a comprehensive

⁵⁷ [36 CFR part 800](#)

⁵⁸ Public Law 92-500 (October 18, 1972)

1397 approach to advancing equity for all, including people of color and others who have been historically
 1398 underserved, marginalized and adversely affected by persistent poverty and inequality.

1399 Many EHP laws, regulations and executive orders require a decision-making process to consider
 1400 alternatives and impacts to resources during project scoping. Early consideration of EHP resources in
 1401 the project scoping phase will allow communities to design projects that avoid, minimize and
 1402 mitigate adverse impacts of projects to natural and cultural resources as well as minority and low-
 1403 income populations and tribes.

1404 For example, some key EHP considerations include:

- 1405 ▪ Whether the proposed project is in an area with threatened and endangered species or in the
 1406 threatened and endangered species’ designated critical habitat.
- 1407 ▪ Whether the proposed project might impact historic or cultural resources.
- 1408 ▪ Whether the proposed project will have a disproportionate impact on low-income and
 1409 minority populations or tribes.
- 1410 ▪ Whether the proposed project will involve work in water, floodplains, wetlands or coastal
 1411 zones.

1412 If the project could result in adverse impacts to natural and cultural resources or have
 1413 disproportionately high and adverse impacts on low-income and minority populations or tribes, then
 1414 EHP laws, regulations or executive orders may:

- 1415 ▪ Have time and cost implications for a project.
- 1416 ▪ Include additional award conditions (such as permits or timing restrictions) imposed by
 1417 FEMA.
- 1418 ▪ Require the applicant or subapplicant to consider alternatives, identify alternate locations,
 1419 and, as necessary, modify the project.
- 1420 ▪ Require mitigation measures to resolve adverse effects or impacts resulting from the project.

1421 By considering natural and cultural resources in the project scoping phase, applicants and
 1422 subapplicants may be able to resolve issues of concern earlier in the process, prior to significant
 1423 commitment of time and resources. See [Figure 4](#) for an overview of incorporating the EHP and the
 1424 National Environmental Policy Act process in project scoping.

1425 Early consideration of natural and cultural resources in the project scoping process can also help
 1426 develop resilient mitigation projects and advance environmental stewardship in communities.
 1427 Applicants and subapplicants should consider natural and cultural resources to identify opportunities
 1428 for the design of projects to enhance, restore or preserve natural and cultural resources and to
 1429 provide additional ecosystem services to a community, which in turn can lead to better mitigation

1430 outcomes. For example, mitigation project types that create open space, such as property
 1431 acquisitions and innovative drought and flood mitigation activities, can provide conservation benefits
 1432 to species and habitats. Early consideration of cultural resources can help identify mitigation
 1433 approaches that preserve historical resources from hazards without adversely affecting their historic,
 1434 aesthetic or cultural value.

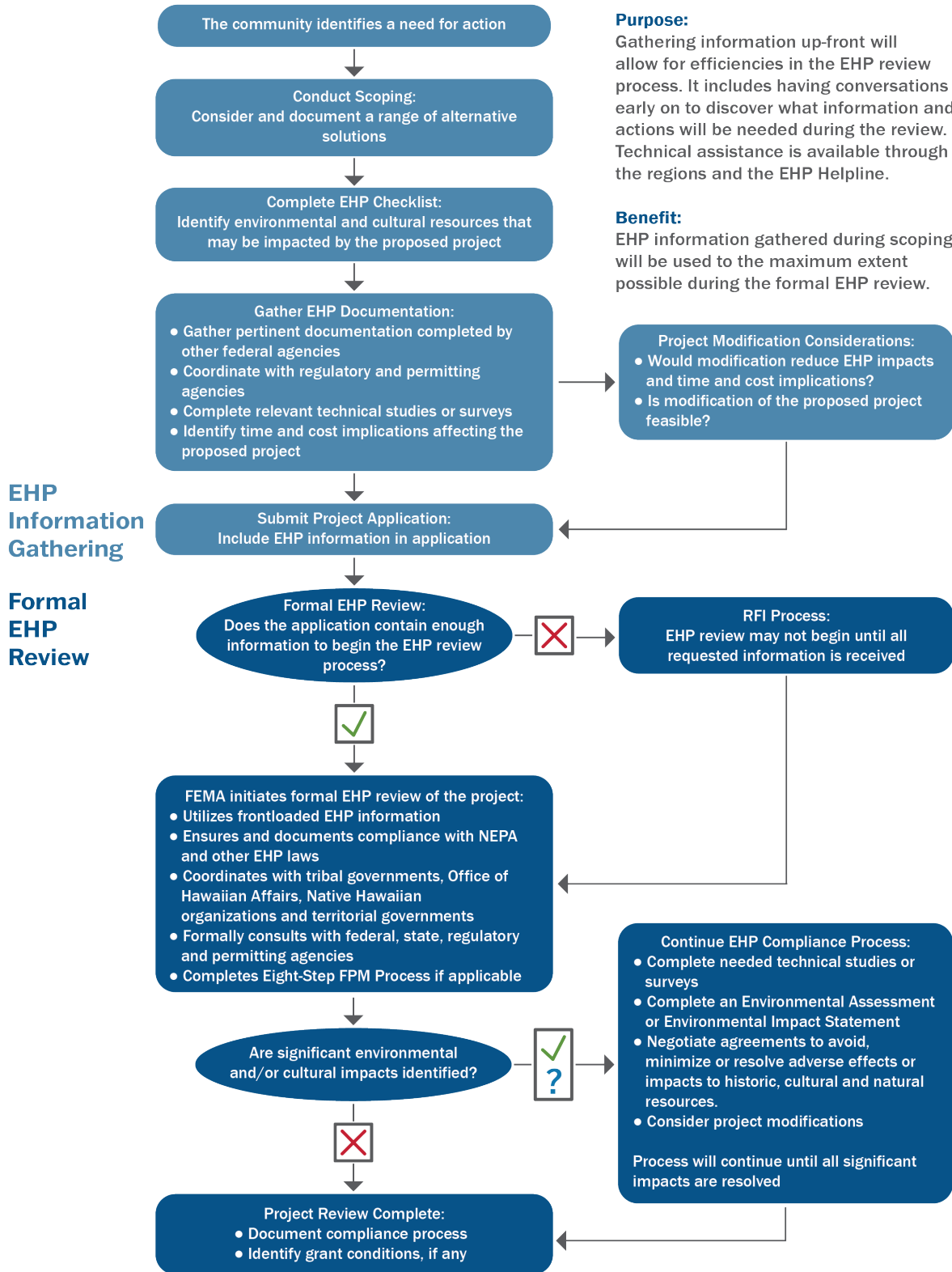
1435 During project scoping, applicants and subapplicants should research prior activities close to the
 1436 proposed project location, such as identifying EHP reviews undertaken by federal, state or local
 1437 commissions or agencies for previously completed projects, gathering EHP data, and reaching out to
 1438 stakeholders and regulatory agencies for pertinent information. Applicants and subapplicants should
 1439 use the EHP Checklist (see [Table 7](#)) and FEMA’s [“Environmental & Historic Preservation Grant
 1440 Preparation Resources”](#) webpage to help identify EHP issues and consider natural and cultural
 1441 resources when scoping a project and developing a project application. Advance assistance, pre-
 1442 award costs, phasing assistance and technical assistance are available mechanisms to consider the
 1443 EHP requirements in the early stages. For more information, see [Part 6](#).

1444 To help applicants and subapplicants develop project scopes, federal and state regulatory agencies
 1445 may offer pre-application consultation meetings to provide informal discussions about proposed
 1446 activities, alternatives and measures for reducing impacts. These agencies may include but are not
 1447 limited to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for impacts to
 1448 federally listed threatened and endangered species; U.S. Fish and Wildlife Service for impacts to
 1449 Coastal Barrier Resource System zones and bald or golden eagles; National Marine Fisheries Service
 1450 for impacts to essential fish habitat or marine mammals; and the U.S. Army Corps of Engineers
 1451 (USACE) for projects in navigable waters or that involve dredging or filling in waters of the U.S. State
 1452 and tribal agencies may include the departments of environmental protection, historic preservation
 1453 offices, and local floodplain administrators.

1454 Public engagement is an integral part of EHP reviews and project development and is required for
 1455 compliance with many EHP laws, regulations and executive orders. Public input can help identify
 1456 potential impacts to natural and cultural resources, low-income and minority communities, and
 1457 tribes. Public input can also help shape project scopes to provide better mitigation outcomes.

1458 Subapplicants may assist FEMA in planning public engagement strategies and with publishing public
 1459 notices on community websites, in newspapers or on social media. In their subapplications,
 1460 subapplicants should describe any existing or planned public engagement activities and feedback
 1461 received from the public regarding the project.

Information Gathering and Formal EHP Review Process



1462

1463

Figure 4. EHP Information Gathering and the Formal Review Process

1464 J. Unified Federal Review

1465 In some cases, HMA may approve funding for a portion of a larger project that involves other FEMA
1466 programs (e.g., PA, Individual Assistance [IA]); other federal agencies (e.g., USACE); or agencies with
1467 delegated federal authority (e.g., the U.S. Department of Housing and Urban Development).

1468 In these cases, the Sandy Recovery Improvement Act of 2013⁵⁹ added section 429 to the Stafford
1469 Act,⁶⁰ which directed the development of an expedited and unified interagency EHP review process,
1470 also known as Unified Federal Review, to ensure federal agencies coordinate EHP compliance for
1471 activities. When two or more federal agencies are involved with a project, or if any applicant EHP
1472 coordination has occurred, relevant environmental and historic or cultural resource considerations
1473 may have already been identified and addressed in previous EHP project planning activities. FEMA
1474 may be able to use or adopt EHP documentation if that documentation addresses the scope of the
1475 FEMA-approved activity, and the agency verifies it meets EHP compliance requirements.

1476 Projects proposed for FEMA funding may involve more than one federal agency and can require
1477 significant interagency collaboration and stakeholder engagement. Federal agencies use the Unified
1478 Federal Review process to address the coordination challenges when multiple agencies are engaged
1479 in the same disaster recovery effort. The Unified Federal Review process recognizes the important
1480 role of federal agencies, states, tribes, localities and the public in EHP reviews. Applicants and
1481 subapplicants should identify for FEMA the other federal agency or agencies from which they are
1482 seeking approval, funding or permitting, as well as provide any relevant information to help
1483 streamline and inform the EHP review.

1484 The Unified Federal Review process coordinates federal agency EHP reviews for proposed projects
1485 associated with Presidentially declared disasters under the Stafford Act. The purpose of the Unified
1486 Federal Review process is to improve federal decision-making to allow for more timely and planned
1487 processes that yield better outcomes for communities and the environment when federal funds and
1488 permits are used for disaster recovery projects. The Unified Federal Review process does not change
1489 EHP requirements under existing federal law. Instead, it identifies ways to use existing efficiencies,
1490 with new tools and mechanisms, to expedite the EHP review of proposed projects involving multiple
1491 federal agencies and avoid duplication of effort.

1492 These efforts include identifying and addressing gaps and inconsistencies within federal regulations,
1493 policies and programs related to natural and cultural resource issues, which result in the following
1494 outcomes:

- 1495 ▪ Faster delivery of federal assistance to rebuild following a disaster.

⁵⁹ Public Law 113-2 (January 29, 2013), [42 U.S.C. § 5121](#)

⁶⁰ [42 U.S.C. § 5189g](#)

1496 ▪ Transparent EHP review process for disaster recovery projects and what may be required
1497 before a federal agency may award assistance.

1498 ▪ Streamlined application processes for federal assistance, in which federal agencies accept
1499 data in multiple formats so duplicate EHP information is no longer needed.

1500 ▪ Up-to-date contact information for federal and state agencies that can provide federal
1501 assistance and relevant information.

1502 The Unified Federal Review process may assist a jurisdiction’s project review if any of the following
1503 statements is true:

1504 ▪ Other federal resource/regulatory agencies are involved.⁶¹

1505 ▪ Other federal funding or actions are involved.

1506 ▪ The proposed project is covered by existing analyses or agreements.

1507 To learn more about the Unified Federal Review process and how it may apply to a project, consult
1508 the *Unified Federal Review Practitioners Guide 2021*, contact the Regional Unified Federal Review
1509 Coordinator or send an email to federal-unified-review@fema.dhs.gov.

1510 **K. Floodplain Management and Protection of Wetlands**

1511 HMA programs and awards must conform to [44 CFR part 9](#), which incorporates the requirements of
1512 [Executive Order \(EO\) 11988](#), *Floodplain Management* (May 24, 1977) as amended by [EO 13690](#)
1513 and [EO 11990: Protection of Wetlands](#) (May 24, 1977). Applicants and subapplicants must review
1514 all proposed actions to determine whether they are in the floodplain or wetland. In accordance with
1515 EO 11988 as amended and EO 11990, FEMA must complete an eight-step decision-making process
1516 for proposed actions located in the 1-percent annual chance floodplain (or 0.2-percent annual
1517 chance floodplain for critical actions) and proposed actions that have the potential to affect or be
1518 affected by a floodplain or wetland (see [Figure 5](#)).

1519 As part of the eight-step decision-making process, FEMA must consider alternative locations to
1520 determine whether the floodplain or wetland is the only practicable location for that action.
1521 Applicants and subapplicants must document alternatives considered as part of their scoping
1522 process to assist FEMA in facilitating this decision-making process. If the floodplain or wetland is the
1523 only practicable location, the applicant/subapplicant must avoid or must minimize adverse impacts

⁶¹ Other federal resources and regulatory agencies may be found in the multiagency [Memorandum of Understanding Establishing the Unified Federal Environmental and Historic Preservation Review Process for Disaster Recovery Projects](#) (2014).

1524 to the floodplain or wetland. For more information on floodplain management requirements, see [Part](#)
1525 [4](#).

1526 **L. Accessibility**

1527 FEMA is committed to achieving accessible and fully inclusive emergency management.
1528 Considerations for individuals with disabilities should be contemplated as part of holistic community-
1529 based mitigation. With respect to HMA, this requires active engagement in meeting the disabilities of
1530 individuals as applications are scoped and developed. FEMA must comply with any federal law
1531 addressing accessibility, such as the Americans with Disabilities Act of 1990,⁶² Architectural Barriers
1532 Act of 1968⁶³ or the Rehabilitation Act of 1973.⁶⁴ As appropriate, factors for accessible design
1533 should be incorporated into HMA activities to serve the whole community to the greatest extent
1534 possible. When communities integrate the disabilities of their entire populations in all phases of
1535 community-wide emergency management, they strengthen their ability to prepare for, protect
1536 against, respond to, recover from and mitigate all hazards.

1537 For more on accessibility, see the [FEMA section 504 of the Rehabilitation Act of 1973 Overview](#).

1538 **M. Develop the HMA Subapplication**

1539 The next step in the HMA process is developing or assembling the subapplication. The principal
1540 components of a subapplication are the scope of work, budget and schedule. These pieces may be
1541 developed based on previous similar activities by the subapplicant through construction estimates,
1542 property appraisals and other technical evaluations.

1543 Once the subapplicant prepares the subapplication, it is submitted to the applicant. In many cases,
1544 the applicant is the state government, federally recognized tribe or territory. Once the
1545 subapplications are collected, the applicant reviews and prioritizes submissions based on specific
1546 criteria that align with its mitigation strategy with regard to available funding and activity type.

1547 Finally, the application is submitted to FEMA for determination of eligibility based on cost-
1548 effectiveness, technical feasibility, EHP review and the approved mitigation plan as applicable to
1549 activity type. FEMA may send the applicant a Request for Information. A Request for Information is
1550 often used to help clarify and strengthen the subapplication. For more information on the Request
1551 for Information process, see [Part 6](#).

1552 Applications and subapplications submitted to FEMA must meet all program eligibility criteria
1553 outlined in the law, regulation and HMA Guide. FEMA does not accept incomplete or placeholder
1554 applications or subapplications. Incomplete applications or subapplications delay award and

⁶² Public Law 101-336 (July 26, 1990)

⁶³ Public Law 90-480 (August 12, 1968), [42 U.S.C. § 4151](#)

⁶⁴ Public Law 93-112 (September 26, 1973), [42 U.S.C. § 701](#)

1555 subaward approval if they do not contain sufficient information for FEMA to make a program
1556 eligibility determination.

1557 If an application lacks the necessary eligibility information, FEMA cannot determine eligibility and
1558 approve an application. If information is lacking, FEMA may request additional information during the
1559 review process.

1560 The following documentation, which is needed to demonstrate eligibility, should be contained in the
1561 subapplication and application. Criteria may vary depending on the proposed activity, but
1562 applications/subapplications generally include all the elements below:

- 1563 ▪ Eligible applicant and subapplicant.
- 1564 ▪ Identification of mitigation activity.
- 1565 ▪ Alternate mitigation actions.
- 1566 ▪ Conformance with FEMA-approved mitigation plan.⁶⁵
- 1567 ▪ Scoping narrative that provides an outline of the proposed activities and outcomes and
1568 contains the following:
 - 1569 ○ Detailed scope of work.
 - 1570 ○ Work schedule demonstrating that the activity will be completed within the period of
1571 performance for the applicable program (see [Part 7](#)).
 - 1572 ○ Budget that supports the scope of work, including the schedule, and reflects the total
1573 activity cost.
 - 1574 ○ Cost share information that clearly identifies the source of the non-federal cost share and
1575 establishes that the non-federal cost share meets program eligibility requirements.
 - 1576 ○ Cost-effectiveness information (See exceptions in [Part 5](#)).
 - 1577 ○ Feasibility and effectiveness information (mitigation project types only).
 - 1578 ○ EHP compliance documentation as required by EHP guidance (See [Table 7](#) for EHP
1579 Compliance Checklist).
- 1580 ▪ Assurances and approved forms in accordance with programming requirements (see [Part 6](#)
1581 and [Part 10](#)).

⁶⁵ For HMGP, see [44 CFR § 206.434\(c\)\(1\)](#); for FMA, see [44 CFR § 77.6\(b\)](#); for BRIC, see the [NOFO](#).

- 1582 ▪ Additional documentation as required by FEMA.

1583 Subapplication requirements and the EHP Checklist have been incorporated into FEMA’s electronic
 1584 application system. For additional information on the above outlined elements of the subapplication,
 1585 see [Part 6](#).

1586  Subapplication and Scoping Resources

- 1587 ▪ FEMA job aid: *Considerations for Local Mitigation Planning Grant Subapplications*
 1588 [https://www.fema.gov/sites/default/files/documents/fema_hma-considerations-local-
 planning-grant-job-aid.pdf](https://www.fema.gov/sites/default/files/documents/fema_hma-considerations-local-

 1589 planning-grant-job-aid.pdf)
- 1590 ▪ FEMA job aid: *Tribal Mitigation Planning and HMA Grant Application Development*
 1591 https://www.fema.gov/sites/default/files/documents/fema_hma-tribal-job-aid.pdf
- 1592 ▪ Public Assistance Program Policy, Guidance and Fact Sheets:
 1593 <https://www.fema.gov/assistance/public/policy-guidance-fact-sheets>
- 1594 ▪ FEMA Policy 204-079-01: *Building Code and Floodplain Management Administration and*
 1595 *Enforcement* [https://www.fema.gov/sites/default/files/2020-10/fema_building-code-
 floodplain-management-administration-enforcement-policy_drra-1206_signed_10-15-
 2020.pdf](https://www.fema.gov/sites/default/files/2020-10/fema_building-code-

 1596 floodplain-management-administration-enforcement-policy_drra-1206_signed_10-15-

 1597 2020.pdf)
- 1598 ▪ National Environmental Policy Act: <https://www.epa.gov/nepa>
- 1599 ▪ EHP Guidance for FEMA Grant Applications: [https://www.fema.gov/grants/guidance-
 tools/environmental-historic](https://www.fema.gov/grants/guidance-

 1600 tools/environmental-historic)
- 1601 ▪ FEMA section 504 of the Rehabilitation Act of 1973 Overview:
 1602 <https://www.fema.gov/about/offices/equal-rights/504>
- 1603 ▪ Americans with Disabilities Act Title II Regulations:
 1604 https://www.ada.gov/regs2010/titleII_2010/titleII_2010_regulations.htm

1605 **Part 4. Eligibility and** 1606 **Requirements**

1607 This part identifies eligibility and requirements for all Hazard Mitigation Assistance (HMA) programs,
1608 which include the following components:

- 1609 ▪ Eligible applicants and subapplicants.
- 1610 ▪ Eligible and ineligible activities.
- 1611 ▪ Hazard mitigation plan requirements.
- 1612 ▪ Cost-effectiveness.
- 1613 ▪ Feasibility and effectiveness.
- 1614 ▪ Environmental and historic preservation (EHP).
- 1615 ▪ Cost eligibility.
- 1616 ▪ Cost sharing.
- 1617 ▪ Restrictions on the use of HMA.
- 1618 ▪ Other program requirements.

1619 To be eligible for HMA programs, applicants and subapplicants must apply in the manner described
1620 in the HMA Guide.

1621 **A. Eligible Applicants**

1622 Entities eligible to apply to the HMA programs include the emergency management agency or a
1623 similar office of the 50 states (e.g., the office that has primary emergency management or floodplain
1624 management responsibility), the District of Columbia, American Samoa, Guam, the U.S. Virgin
1625 Islands, Puerto Rico, the Northern Mariana Islands, and federally recognized tribal governments,
1626 including Alaska Native villages and organizations. Each state, commonwealth, federally recognized
1627 tribal government⁶⁶ (including Alaska Native villages and organizations) or territory must designate

⁶⁶ Definition from [44 Code of Federal Regulations \(CFR\) § 206.431](#) – Tribal government means any federally recognized government body of an Indian or Alaska Native Tribe, band, nation, pueblo, village, or community that the Secretary of Interior acknowledges to exist as an Indian Tribe under the Federally Recognized Indian Tribe List Act of 1994 (section 102 of the Stafford Act, [42 United States Code \(U.S.C.\) § 5122\(6\)](#)). This does not include Alaska Native corporations, the ownership of which is vested in private individuals. (Also see [44 CFR § 201.2](#) definitions, referring to 25 U.S.C. § 479a.)

1628 one agency to serve as the applicant for each HMA program. Alaska Native corporations are
 1629 ineligible, as they are privately owned.⁶⁷

1630 B. Eligible Subapplicants

1631 A subapplicant is generally defined as a non-federal entity that receives a subaward from a pass-
 1632 through entity (recipient) to carry out part of a federal program.⁶⁸ This does not include an individual
 1633 that is a beneficiary of such a program.

1634 In general, which entity can be a subapplicant depends on the eligibility spelled out in the governing
 1635 legislation or regulation of the HMA program under which assistance is sought.

1636 Eligible subapplicants may include:

- 1637 ▪ State agencies.
- 1638 ▪ Local governments.
- 1639 ▪ Federally recognized tribal governments.
- 1640 ▪ Private nonprofit (PNP) organizations (for the Hazard Mitigation Grant Program [HMGP] and
 1641 Hazard Mitigation Grant Program Post Fire [HMGP Post Fire] only).⁶⁹

1642 As indicated in [Part 4](#), individuals, businesses and certain PNPs are generally ineligible to directly
 1643 apply for HMA. Applying for HMA happens through eligible subapplicants, who, in turn, submit a
 1644 subapplication to applicants on behalf of individuals, businesses and PNP organizations. This
 1645 arrangement ensures consistency with the mitigation priorities established by state, local, tribal and
 1646 territorial governments.

1647 [Table 3](#) highlights the eligibility of subapplicants under HMGP, HMGP Post Fire, BRIC and FMA.

1648 **Table 3: Eligible Subapplicants**

Entity	HMGP	HMGP Post Fire	BRIC	FMA
State agencies	Yes	Yes	Yes	Yes

⁶⁷ [44 CFR § 206.434\(a\)\(3\)](#)

⁶⁸ [2 CFR § 200.1](#)

⁶⁹ For the HMGP, see [44 CFR § 206.434\(a\)](#); for the FMA program, see [44 CFR § 77.6](#); for HMGP and Building Resilient Infrastructure and Communities, see [44 CFR § 206.2\(a\)\(16\)](#); for local governments, see [42 U.S.C. § 5122\(8\)](#) and [44 CFR § 201.2](#); for private nonprofit organizations, see [44 CFR § 206.221\(e\)](#).

Entity	HMGP	HMGP Post Fire	BRIC	FMA
Local governments, including tribal governments*	Yes	Yes	Yes	Yes
Federally recognized tribal government	Yes	Yes	Yes	Yes
PNP organizations and institutions that own and operate a facility that provides an essential government service as defined in 44 CFR § 206.221(e) †	Yes	Yes	No	No
Qualifying conservation PNP organization‡	Yes	Yes	No	No

1649 * Local governments may include non-federally recognized tribes or, consistent with the definition of
 1650 local government in [42 U.S.C. § 5122\(8\)](#), may include any tribe, authorized tribal organization, or
 1651 Alaska Native village or organization that is not federally recognized according to [25 U.S.C. § 479a](#) et
 1652 seq.

1653 † PNP organizations are defined in [44 CFR 206.221\(f\)](#).

1654 ‡ Limited to acquisition and demolition/relocation projects

1655 **B.1. State Agencies**

1656 State agencies are any department, commission, council, board, educational institution or official of
 1657 the executive, legislative or judicial branch of a state or territorial government.

1658 **B.2. Local Governments**

1659 Local governments are any county, municipality, city, town, township, public authority, school district,
 1660 special district, intrastate district, council of government, regional or interstate government entity, or
 1661 an agency or instrumentality of a local government; any tribe or authorized tribal organizations, or
 1662 Alaska Native village or organization; and any rural community, unincorporated town or village, or
 1663 other public entity.⁷⁰

⁷⁰ [42 U.S.C. § 5122\(8\)](#), [2 CFR § 200.1](#)

1664 **B.3. Private Nonprofit Organizations**

1665 Under HMGP and HMGP Post Fire, only certain PNPs are eligible subapplicants. To be an eligible
1666 subapplicant, the PNP must own and operate a PNP facility.⁷¹ A qualified conservation organization⁷²
1667 is the only PNP organization (that does not own or operate a nonprofit facility) that is eligible to apply
1668 for acquisition or relocations for open space projects.⁷³

1669 To be eligible, a PNP organization must show that it has either one of the following:

- 1670 ▪ A ruling letter from the U.S. Internal Revenue Service that was in effect as of the date of the
1671 declaration for HMGP and granted tax exemption under sections 501(c), (d) and (e) of the
1672 Internal Revenue Code of 1954.⁷⁴
- 1673 ▪ Documentation from the state substantiating it is a nonrevenue producing, nonprofit
1674 organized or doing business under state law.⁷⁵

1675 To determine PNP eligibility, the Federal Emergency Management Agency (FEMA) must also
1676 determine whether the PNP organization owns or operates a PNP that provides one of the services
1677 listed below:

- 1678 ▪ A facility that provides a critical service, defined as education, utility, emergency or
1679 medical.⁷⁶
- 1680 ▪ A facility that provides a noncritical but essential government service and provides those
1681 services to the general public.⁷⁷
- 1682 ▪ Certain types of facilities, such as senior centers, that restrict access in a manner clearly
1683 related to the nature of the facility and are still considered to provide essential government
1684 services to the general public.

1685 Under Building Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance
1686 (FMA), PNP organizations are not eligible subapplicants and cannot apply for HMA. However, an
1687 eligible subapplicant may apply on their behalf. Likewise, partnerships that are formed in support of
1688 a BRIC project must have an eligible subapplicant submit a subapplication. Partnerships may include
1689 PNPs as well as other private sector entities.

⁷¹ [44 CFR § 206.221\(e\)](#)

⁷² [44 CFR § 80.3\(h\)](#)

⁷³ [44 CFR § 206.434](#)

⁷⁴ Public Law 591 – Chapter 736 (August 16, 1954), as amended

⁷⁵ [44 CFR § 206.221\(f\)](#)

⁷⁶ [44 CFR § 206.221\(e\)](#)

⁷⁷ [44 CFR § 206.221\(e\)\(7\)](#)

1690 **B.4. Federally Recognized Tribal Government**

1691 A federally recognized tribal government has the option to apply for the HMA programs through the
 1692 state as a subapplicant (when permitted) or directly to FEMA as an applicant. This choice is
 1693 independent of a designation under other FEMA grants and programs but is not available on a case-
 1694 by-case basis within a single grant program in the same year. If a federally recognized tribe chooses
 1695 to apply directly to FEMA and an award is made, it bears the full responsibility of a recipient.

1696 Alaska Native Corporations are ineligible, as they are privately owned.⁷⁸

1697 **C. Hazard Mitigation Plan Requirements**

1698 To be eligible for HMA, all applicants and subapplicants must have a FEMA-approved mitigation plan.
 1699 Applicants and subapplicants must adopt the mitigation plan before FEMA approves it. This section
 1700 presents information on how applicants and subapplicants can meet the mitigation plan
 1701 requirement. It also presents information on extraordinary circumstances and the requirement for
 1702 conformance with hazard mitigation plans for HMA activities. A lapse in the FEMA-approved
 1703 mitigation plan may result in a temporary hold on obligations until the mitigation plan regains FEMA
 1704 approval. Guidance for developing and updating mitigation plans can be found on [FEMA's "Hazard
 1705 Mitigation Planning" webpage](#).

1706 **C.1. Applicant Mitigation Plan Requirements**

1707 All applicants for BRIC and FMA must have a FEMA-approved state or tribal (standard or enhanced)
 1708 mitigation plan by the application deadline and at the time of obligation of the award.⁷⁹ State
 1709 agencies and federally recognized tribal governments applying for HMGP and HMGP Post Fire
 1710 assistance must have a FEMA-approved state or tribal (standard or enhanced) mitigation plan at the
 1711 time of the major disaster declaration and at the time HMGP and HMGP Post Fire assistance is
 1712 obligated to the recipient or subrecipient.⁸⁰

1713 **C.2. Subapplicant Mitigation Plan Requirements**

1714 All subapplicants for BRIC and FMA must have a FEMA-approved local or tribal mitigation plan by the
 1715 application deadline and at the time of obligation of grant assistance, unless otherwise noted by the
 1716 applicable NOFO.⁸¹ All subapplicants (except for PNPs) for HMGP and HMGP Post Fire must have a
 1717 FEMA-approved local or tribal mitigation plan at the time of obligation of grant assistance.⁸² PNP
 1718 subapplicants do not have mitigation plan requirements as a condition of subapplicant eligibility.
 1719 Subapplicants without current mitigation plans may apply to any of the HMA programs for assistance

⁷⁸ [44 CFR § 206.434\(a\)\(3\)](#)

⁷⁹ [44 CFR part 201](#), [44 CFR § 77.6\(b\)](#)

⁸⁰ [44 CFR § 206.434\(c\)\(1\)](#)

⁸¹ [44 CFR § 201.6](#), [44 CFR § 201.7](#)

⁸² [44 CFR § 206.434\(b\)](#)

1720 to develop a new plan. State agencies are eligible subapplicants under HMGP, HMGP Post Fire, BRIC
1721 or FMA; a FEMA-approved state mitigation plan is required as a condition of the state agencies
1722 receiving assistance.⁸³

1723 The way tribal governments apply as a subapplicant determines how the tribe must meet the
1724 mitigation requirement. The three scenarios are as follows:

- 1725 1. If a federally recognized tribal government agency or department applies as a subapplicant
1726 under HMGP, HMGP Post Fire, BRIC or FMA, then a tribal mitigation plan is required as a
1727 condition of receiving assistance.⁸⁴
- 1728 2. If a tribal government that meets the definition of local government (such as tribal governments
1729 that are not federally recognized) applies as subapplicant under HMGP, HMGP Post Fire, BRIC or
1730 FMA, then a tribal mitigation plan is required as a condition of receiving assistance.⁸⁵
- 1731 3. If a federally recognized tribal government coordinates the review of its tribal mitigation plan with
1732 the recipient, it can apply as a subapplicant through that recipient (i.e., a state or another
1733 federally recognized tribe).⁸⁶

1734 A lapse in the FEMA-approved mitigation plan may result in a temporary hold on obligations until the
1735 mitigation plan regains FEMA approval.

1736 **C.2.1. EXTRAORDINARY CIRCUMSTANCES**

1737 A local government or tribal government applying as a subapplicant must have a mitigation plan
1738 approved to receive HMA project subawards. However, the FEMA regional administrator may grant
1739 an exception to the plan requirements in extraordinary circumstances when the appropriate
1740 justification is provided.⁸⁷

1741 For HMGP, HMGP Post Fire, BRIC and FMA, extraordinary circumstances exist when FEMA or the
1742 applicant determine that the proposed project is consistent with the priorities and strategies
1743 identified in the state or tribal (standard or enhanced) mitigation plan and that the jurisdiction meets
1744 at least one of the criteria below:

- 1745 ▪ The jurisdiction meets the small impoverished community criteria.⁸⁸

⁸³ [44 CFR § 201.4](#)

⁸⁴ [44 CFR § 201.7](#)

⁸⁵ [44 CFR § 201.7](#)

⁸⁶ [44 CFR § 201.7](#)

⁸⁷ [44 CFR § 201.6\(a\)\(3\)](#)

⁸⁸ [42 U.S.C. § 5133\(a\)](#)

1746 ▪ The jurisdiction has been determined to have had insufficient capacity because of lack of
1747 available assistance, staffing or other necessary expertise to satisfy the mitigation planning
1748 requirement prior to the current disaster or application deadline.

1749 ▪ The jurisdiction experienced significant disruption from a declared disaster or another event
1750 that impacts its ability to complete the mitigation planning process prior to award or final
1751 approval of a project award.

1752 ▪ The jurisdiction does not have a mitigation plan for reasons beyond the control of the state,
1753 federally recognized tribal government or local community, such as Disaster Relief Fund
1754 restrictions, that delay FEMA from granting a subaward prior to the expiration of the local or
1755 tribal mitigation plan.

1756 The applicant must provide written justification that identifies the specific criteria from the above list
1757 and explains why the jurisdiction will be able to have a plan both approved by FEMA and adopted by
1758 the jurisdiction within 12 months including identifying the specific actions or circumstances that
1759 have eliminated or will eliminate the deficiency that prevented the jurisdiction from previously having
1760 an approved plan. Justification must clearly demonstrate how the above circumstances impacted the
1761 community beyond just stating the above circumstances.

1762 If FEMA grants an extraordinary circumstances exception, a local or tribal mitigation plan must be
1763 approved by FEMA within 12 months of the award of the project subaward to that community. The
1764 recipient must acknowledge in writing to the regional administrator that the jurisdiction will complete
1765 a plan within 12 months of the subaward. The recipient must provide a Compliance Action Plan for
1766 completing the local or tribal mitigation plan, including milestones and a timetable, to ensure the
1767 jurisdiction will complete the plan in the required time. This requirement must be incorporated into
1768 the award (both the planning and project subaward agreements, if a planning subaward is also
1769 awarded). If a plan is not provided within this time frame, the project subaward will be terminated,
1770 and any costs incurred after notice of subaward termination will not be reimbursed by FEMA.⁸⁹ FEMA
1771 must notify the recipient of the subaward termination. For more information on award termination,
1772 see [Part 8](#).

1773 If the mitigation plan is not approved by FEMA within 12 months of the award, and if the subaward
1774 also involved a mitigation planning award, FEMA should notify the recipient of its failure to meet the
1775 additional specific award or subaward conditions and request that the issue be corrected following
1776 remedies for noncompliance procedures in [Part 8](#). If compliance cannot be achieved, FEMA will apply
1777 a remedy action to the planning subaward to address the noncompliance and may, as a result,
1778 withhold assistance, recoup assistance, suspend or terminate the planning subaward.⁹⁰

⁸⁹ [44 CFR § 201.6\(a\)\(3\)](#)

⁹⁰ [2 CFR § 200.339](#)

1779 **C.2.2. CONSISTENCY WITH HAZARD MITIGATION PLANS**

1780 Activities submitted for consideration for HMA must be consistent with the current, FEMA-approved
 1781 state or tribal (standard or enhanced) mitigation plan as well as the local or tribal mitigation plan for
 1782 the jurisdiction in which the activity is located.⁹¹ Specifically, the activity must be consistent with the
 1783 goals and objectives of the plan, and it must directly reduce the vulnerabilities identified in the risk
 1784 assessment.

1785 Often state agencies, acting as the subrecipients, administer subawards for state assets. In these
 1786 instances, the state is required to have a FEMA-approved state mitigation plan, but a local or tribal
 1787 mitigation plan is not required. For example, the mitigation of a state-owned transportation facility
 1788 located within the jurisdiction of a local government that does not have a mitigation plan may be
 1789 eligible for HMA programs. The state’s Department of Transportation (DOT) may submit a
 1790 subapplication to protect the facility, provided its assets are covered in the state’s mitigation plan,
 1791 even if the jurisdiction does not have a mitigation plan.

1792 Additionally, a local or tribal mitigation plan is not required when a state agency or PNP, acting as a
 1793 subapplicant, proposes an activity that meets the following criteria:

- 1794 ▪ The activity will be administered by the state agency or PNP as a statewide initiative or
 1795 program.
- 1796 ▪ The statewide initiative or program is consistent with the goals and objectives of the current
 1797 FEMA-approved state or tribal (standard or enhanced) mitigation plan.
- 1798 ▪ The state agency or PNP is not applying on behalf of a local government to circumvent the
 1799 local or tribal mitigation plan requirement.
- 1800 ▪ The community in which the activity is located does not have any financial interest in the
 1801 subaward (e.g., property ownership, long-term maintenance) or significant authority over the
 1802 activity (except for permits under current building codes).

1803 Where there is a local or tribal government planning requirement (for the subrecipient), statewide
 1804 plans will not be accepted as multi-jurisdictional plans.⁹²

1805 **D. Eligible Activities**

1806 To be eligible, activities must meet all requirements referenced in the HMA Guide. [Table 4](#)
 1807 summarizes eligible activities that may be funded by the HMA programs. This table is not
 1808 comprehensive, and FEMA encourages subapplicants to submit new and innovative activities that
 1809 may not be specifically outlined below.

⁹¹ [44 CFR § 206.434\(c\)\(1\)](#), [44 CFR § 201.4](#), [44 CFR § 201.6](#)

⁹² [44 CFR § 201.6\(a\)\(4\)](#)

1810 Eligible activities fall into three categories:

1811 1. Capability- and Capacity-Building (nonconstruction) ([Part 11](#)).

1812 a. Mitigation planning and planning-related activities.

1813 b. Project scoping/advance assistance.

1814 c. Partnerships.

1815 d. Technical assistance (financial/nonfinancial).

1816 e. Codes and standards.

1817 2. Mitigation projects (construction) ([Part 12](#)).

1818 3. Management costs ([Part 13](#)).

1819 **Table 4: Eligible Activities by Program**

Eligible Activities	HMGP	HMGP Post Fire	BRIC	FMA
1. Capability- and Capacity-Building				
New Plan Creation and Updates	Yes	Yes	Yes	Yes*
Planning-Related Activities	Yes	Yes	Yes	No
Project Scoping/Advance Assistance	Yes	Yes	Yes	Yes
Financial Technical Assistance	No	No	No	Yes
Direct Non-Financial Technical Assistance	No	No	Yes	No
Partnerships	No	No	Yes	No
Codes and Standards	Yes	Yes	Yes	No
Innovative Capability- and Capacity-Building†	Yes	Yes	Yes	Yes
2. Mitigation Projects				
Property Acquisition	Yes	Yes	Yes	Yes
Structure Elevation	Yes	Yes	Yes	Yes
Mitigation Reconstruction	Yes	Yes	Yes	Yes
Flood Risk Reduction Measures	Yes	Yes	Yes	Yes
Stabilization	Yes	Yes	Yes	Yes
Dry Floodproofing Non-Residential Buildings	Yes	Yes	Yes	Yes
Tsunami Vertical Evacuation	Yes	Yes	Yes	No

Eligible Activities	HMGP	HMGP Post Fire	BRIC	FMA
Safe Rooms	Yes	Yes	Yes	No
Wildfire Mitigation	Yes	Yes	Yes	No
Retrofitting	Yes	Yes	Yes	Yes
Generators	Yes	Yes	Yes	No
Warning Systems (excluding earthquake early warning systems)	Yes	Yes	Yes	No
Earthquake Early Warning Systems	Yes	Yes	Yes	No
Innovative Mitigation Projects [†]	Yes	Yes	Yes	Yes
3. Management Costs	Yes	Yes	Yes	Yes

1820 * For FMA, new plans and plan updates must provide for the reduction of flood losses to structures
 1821 for which National Flood Insurance Program (NFIP) coverage is available.⁹³

1822 † Innovative Capability- and Capacity-Building Activities and Innovative Mitigation Projects will be
 1823 evaluated on their own merit against program requirements. Eligible activities will be approved on a
 1824 case-by-case basis if assistance is available.

1825 **D.1. Capability- and Capacity-Building**

1826 The following assistance strategies can be used to develop mitigation activities. For a complete
 1827 description of eligibility criteria for each of these categories, see [Part 11](#).

1828 **D.1.1. NEW PLAN CREATION AND PLAN UPDATES**

1829 Natural hazard mitigation planning consists of the process used by state, local and tribal
 1830 governments to engage stakeholders, identify hazards and vulnerabilities, develop a long-term
 1831 strategy to reduce risk and future losses, and implement the plan, taking advantage of a wide range
 1832 of resources. New plan creation and plan update activities must result in a mitigation plan adopted
 1833 by the jurisdiction(s) and approved by FEMA.

1834 **D.1.2. PLANNING-RELATED ACTIVITIES**

1835 To strengthen hazard mitigation across the country, FEMA supports a variety of planning-related
 1836 activities through HMGP, HMGP Post Fire and BRIC. This assistance provides flexibility to state, local
 1837 and tribal governments to reduce risk and integrate hazard mitigation principles into planning for
 1838 resilience.

⁹³ [44 CFR § 77.6\(b\)](#).

1839 **D.1.3. PROJECT SCOPING/ADVANCE ASSISTANCE**

1840 Project scoping/advance assistance refers to the same set of activities that enable applicants and
1841 subapplicants to develop mitigation strategies and obtain data to prioritize, select and develop
1842 complete applications in a timely manner.

1843 **D.1.4. TECHNICAL ASSISTANCE (FINANCIAL AND NONFINANCIAL)**

1844 Financial technical assistance awards are only available under FMA and are meant to allow
1845 applicants to maintain a viable FMA program over time.⁹⁴ Eligible activities include program
1846 promotion, site visits, application development and review, planning and grants management
1847 workshops and staff assistance.

1848 Nonfinancial technical assistance is available under BRIC to allow communities to support mitigation
1849 outcomes to improve resiliency to natural hazards, sustain successful mitigation programs, submit
1850 high-quality applications and implement innovative activities to reduce risk.⁹⁵ Through nonfinancial
1851 Direct Technical Assistance, FEMA will provide support for both activity-specific needs and
1852 community-wide resilience needs. Refer to the applicable Notice of Funding Opportunity (NOFO) for
1853 more information.

1854 **D.1.5. PARTNERSHIPS**

1855 To ensure applicants and subapplicants can build partnerships to support their mitigation efforts,
1856 partnership activities may be eligible under BRIC. For more information, see the applicable BRIC
1857 NOFO.

1858 Partnership activities are not eligible under other HMA programs.

1859 **D.1.6. CODES AND STANDARDS**

1860 FEMA will fund the development, adoption, evaluation, enhancement and enforcement of building
1861 codes and standards through HMA. Assistance for building code-related activities is available
1862 through the HMGP, HMGP Post Fire and BRIC programs. Eligible activities under these three
1863 programs are generally the same; program-specific restrictions are detailed in [Part 11](#).

1864 **D.2. Mitigation Projects**

1865 Eligible mitigation project types are described below. More information regarding these project types
1866 can be found in [Part 12](#).

⁹⁴ [42 U.S.C. § 4104c\(c\)\(3\)\(J\)](#)

⁹⁵ Section 203(e) of the [Stafford Act](#), [42 U.S.C. § 5133\(e\)](#)

1867 **D.2.1. PROPERTY ACQUISITION**

1868 Property acquisition is the purchase of an existing at-risk structure and, typically, the underlying land
1869 from a voluntary owner, as well as the conversion of the land to open space. The existing structure is
1870 either demolished or physically relocated to an area outside of a hazard-prone area (e.g., outside of
1871 the Special Flood Hazard Area [SFHA], high fire zone area or a regulatory erosion zone). In some
1872 cases, undeveloped, at-risk land adjacent to an eligible property with existing structures may be
1873 eligible. The property must be deed restricted in perpetuity to open space uses to restore and/or
1874 conserve the natural floodplain functions.⁹⁶

1875 **D.2.2. STRUCTURE ELEVATION**

1876 Structure elevation is the physical raising and/or retrofitting of an existing structure. Elevation may
1877 be achieved through a variety of methods, including elevating on continuous foundation walls;
1878 elevating on open foundations, such as piles, piers, posts or columns; elevating on fill; and
1879 second-story conversion.

1880 **D.2.3. MITIGATION RECONSTRUCTION**

1881 Mitigation reconstruction is the construction of an improved, elevated building that conforms to the
1882 latest building codes on the same site where an existing building and/or foundation has been
1883 partially or completely demolished or destroyed.

1884 **D.2.4. FLOOD RISK REDUCTION**

1885 Flood risk reduction projects are designed to lessen the frequency of flooding or depth of flood water.
1886 Flood risk reduction project types fall into two categories: localized and non-localized.

1887 Localized flood risk reduction projects are used to lessen the frequency or severity of flooding and
1888 decrease predicted flood damage within an isolated and confined drainage or catchment area that is
1889 not hydraulically linked or connected to a larger basin. Examples of these projects include the
1890 following:

- 1891 ▪ Installation or modification of culverts and other stormwater management facilities.
- 1892 ▪ Flood diversion and storage measures.
- 1893 ▪ Slope stabilization or grading.
- 1894 ▪ Flood protection measures for sewer or other utility systems.
- 1895 ▪ Vegetation management for shoreline stabilization.

⁹⁶ [44 CFR § 80.11](#)

- 1896 ▪ Flood protection and stabilization for roads and bridges.

1897 Non-localized flood risk reduction projects should lessen the frequency or severity of flooding and
 1898 decrease predicted flood damage within an area that is hydraulically linked or connected to a
 1899 drainage basin that is regional in scale. These projects reduce flood hazards in areas larger than that
 1900 of localized flood reduction projects. The projects may include the construction, demolition or
 1901 rehabilitation of dams; the construction or modification of dikes, levees, floodwalls, seawalls, groins,
 1902 jetties, breakwaters and stabilized sand dunes; and the large-scale channelization of a waterway.

1903 **D.2.5. STABILIZATION**

1904 Stabilization projects reduce risk to structures or infrastructure from erosion and landslides by
 1905 installing geosynthetics, stabilizing sod, installing vegetative buffer strips, preserving mature
 1906 vegetation, decreasing slope angles, and stabilizing with riprap and other means of slope anchoring.

1907 **D.2.6. FLOODPROOFING**

1908 Dry floodproofing techniques are applied to keep structures dry by sealing the structure to keep
 1909 floodwaters out. Dry floodproofing of historic residential structures is permissible only when other
 1910 techniques that would mitigate the Base Flood Elevation would cause the structure to lose its status
 1911 as a historic structure. Dry floodproofing of non-historic residential structures is not allowed under
 1912 the HMA programs.

1913 **D.2.7. TSUNAMI VERTICAL EVACUATION**

1914 Tsunami vertical evacuation projects are designed to provide immediate life-safety protection in the
 1915 event of a tsunami, with sufficient height to elevate evacuees above the tsunami inundation depth.
 1916 This type of project includes retrofitting existing structures, constructing new vertical evacuation
 1917 structures, or converting natural topographic features to enable vertical evacuation.

1918 **D.2.8. SAFE ROOMS**

1919 Safe room projects are designed and constructed to provide immediate life-safety protection for
 1920 people in public and private structures from severe wind events, including hurricanes and tornadoes.
 1921 For HMA programs, the term “safe room” only applies to structures that meet the criteria in [FEMA P-
 1922 361: Safe Rooms for Tornadoes and Hurricanes, Fourth Edition \(April 2021\)](#) to provide protection
 1923 from tornadoes and/or hurricanes, including residential and community safe rooms. This type of
 1924 project includes retrofits of existing facilities or new safe room projects and applies to both sole-use
 1925 and multiuse facilities.

1926 **D.2.9. WILDFIRE MITIGATION**

1927 Wildfire mitigation projects mitigate at-risk structures and associated loss of life from the threat of
 1928 future wildfire through:

- 1929 ■ **Defensible space:** Creation of perimeters around homes, structures and critical facilities
1930 through the removal or reduction of flammable vegetation.

- 1931 ■ **Ignition-resistant building materials:** Application of ignition-resistant techniques and/or non-
1932 combustible materials on new and existing homes, structures and critical facilities.

- 1933 ■ **Fire suppression systems:** Exterior sprinkler systems to help extinguish flames and prevent
1934 the spread of fire to nearby buildings or combustible vegetation.

- 1935 ■ **Fuels reduction/vegetation management:** Removal of vegetative fuels proximate to at-risk
1936 structures that, if ignited, pose a significant threat to human life and property, especially
1937 critical facilities.

- 1938 ■ **Post-wildfire flooding prevention and sediment reduction measures:** Preventative measures
1939 that protect property at the base of slopes made vulnerable to erosion and/or flooding
1940 because of loss of vegetation or changes in soil composition post-wildfire.

1941 **D.2.10. RETROFITTING**

1942 Retrofits are modifications to existing structures to reduce or eliminate the risk of future damage and
1943 to protect inhabitants. Retrofits can be structural or non-structural and can be done for a range of
1944 hazards.

1945 Structural retrofits address the structural elements of a building or facility that are essential to
1946 prevent damage, including foundations, load-bearing walls, lateral load-resisting systems, beams,
1947 columns, building envelope, structural floors and roofs, and the connections between these
1948 elements. An example of an earthquake structural retrofit would be the installation of base isolation
1949 or energy dissipation systems in accordance with the latest building codes and standards.

1950 Non-structural retrofits modify the nonstructural elements of a building or facility to reduce or
1951 eliminate the risk of future damage and to protect inhabitants. Non-structural retrofits may include
1952 anchoring major mechanical, electrical, plumbing and architectural components to load-bearing
1953 structure or foundation and bracing of building contents to prevent earthquake damage or the
1954 elevation of utilities.

1955 Structural and non-structural retrofits reduce or eliminate risk of future damage to existing
1956 infrastructure. Retrofits may include existing roads and bridges or infrastructure/lifelines such as
1957 energy utilities, communications systems and public water systems.

1958 **D.2.11. GENERATORS**

1959 Generators are emergency equipment that provide a secondary source of power to a facility. Stand-
1960 alone generators that protect a critical facility are eligible, as are generators that constitute a
1961 functional portion of an otherwise eligible mitigation solution (critical or not).

1962 **D.2.12. WARNING SYSTEMS**

1963 Warning systems projects include equipment and systems to warn people about natural hazards
 1964 such as earthquakes, tornadoes, wildfire, tsunamis and flash floods. Projects may include the
 1965 purchase of National Oceanic and Atmospheric Administration weather radios, sirens and enhanced
 1966 or reverse 911 systems.

1967 **D.3. Management Costs**

1968 Management costs are any indirect costs, any direct administrative costs, and any other
 1969 administrative expenses associated with the administration of HMA awards and subawards.
 1970 Management costs are provided under HMGP, HMGP Post Fire, BRIC and FMA. More information on
 1971 management costs can be found in [Part 13](#).

1972 **E. Ineligible Activities**

1973 The following list provides examples of activities that are not eligible for HMA:

- 1974 ▪ Activities that do not reduce the risk to people, structures or infrastructure.
- 1975 ▪ Activities that are dependent on a contingent action to be effective and/or feasible (i.e., not a
 1976 stand-alone mitigation activity that solves a problem independently or constitutes a
 1977 functional portion of a solution).⁹⁷
- 1978 ▪ Projects with the sole purpose of the open space acquisition of unimproved land.⁹⁸
- 1979 ▪ Property acquisition projects that do not maintain open space in perpetuity according to the
 1980 requirements of [44 CFR part 80](#).
- 1981 ▪ The cost of any functionality or outfitting not directly required for meeting FEMA-approved
 1982 performance criteria, such as interior or exterior decorative elements and fixtures and floor
 1983 treatments.
- 1984 ▪ Projects for which actual physical work, such as groundbreaking, demolition or construction
 1985 of a raised foundation, has occurred prior to award or final approval, with two exceptions:
 - 1986 ○ Properties where private individuals have demolished damaged structures using private
 1987 assistance or other non-federal assistance prior to application for HMA are eligible for
 1988 inclusion in HMA project applications if the demolition is not connected to the project.
 - 1989 ○ Projects for which demolition and debris removal related to structures proposed for
 1990 acquisition or mitigation reconstruction has already occurred may be eligible when such

⁹⁷ [44 CFR § 206.434\(c\)\(4\)](#)

⁹⁸ [44 CFR § 80.11\(b\)](#)

- 1991 activities were initiated or completed under the FEMA Public Assistance (PA) program to
1992 alleviate a health or safety hazard as a result of a disaster.
- 1993 ▪ Projects for preparedness activities or temporary measures (e.g., sandbags, bladders,
1994 geotubes).
 - 1995 ▪ Activities that establish hazard mitigation revolving loan funds.⁹⁹
 - 1996 ▪ Activities required as a result of negligence or intentional actions that contributed to the
1997 conditions to be mitigated; activities intended to remedy a code violation; or the
1998 reimbursement of legal obligations, such as those imposed by a legal settlement, court order
1999 or state law.
 - 2000 ▪ All projects located in Coastal Barrier Resources System units, other than property
2001 acquisition and structure demolition or relocation projects for open space under HMA.
 - 2002 ▪ Projects located in Otherwise Protected Areas that require flood insurance after project
2003 completion.
 - 2004 ▪ Activities on federal lands or associated with facilities owned by another federal entity.
 - 2005 ▪ Projects for hazardous fuels reduction in excess of 2 miles from at-risk buildings and
2006 structures.
 - 2007 ▪ Activities that address unmet needs from a disaster that are not related to mitigation.
 - 2008 ▪ Retrofitting facilities primarily used for religious purposes, such as places of worship (or other
2009 projects that solely benefit religious organizations). However, a place of worship may be
2010 included in a property acquisition and structure demolition or relocation project provided that
2011 the project benefits the entire community, such as when a significant part of the community
2012 is being removed from the hazard area.
 - 2013 ▪ Activities that only address manmade hazards.
 - 2014 ▪ Projects that, without an increase in the level of protection, address the operation, deferred
2015 or future maintenance, rehabilitation, restoration or replacement of existing structures,
2016 facilities or infrastructure (e.g., dredging; debris removal; replacement of obsolete utility
2017 systems or bridges; or maintenance/rehabilitation of facilities, including dams and other
2018 flood risk reduction structures).

⁹⁹ The Safeguarding Tomorrow Through Ongoing Risk Mitigation Act (STORM Act), Public Law 116-284 (January 1, 2021) amended the Stafford Act by creating a new grant program under section 205 ([42 U.S.C. § 5135](#)), allowing grants to entities for the establishment of hazard mitigation revolving loan funds. As of publication, FEMA is assessing the implementation of the STORM Act and will issue separate guidance in the future.

- 2019 ■ Landscaping for ornamentation (e.g., trees, shrubs).
- 2020 ■ Site remediation of hazardous materials (except for eligible activities, such as the abatement
- 2021 of asbestos and/or lead-based paint and the removal of household hazardous wastes for
- 2022 disposal at an approved landfill).
- 2023 ■ Projects that address water quality improvement without mitigating hazards to water quality
- 2024 infrastructure.
- 2025 ■ Projects that primarily address ecological or agricultural issues.
- 2026 ■ Forest management.
- 2027 ■ Prescribed burning or clear-cutting.
- 2028 ■ Creation and maintenance of fire breaks, access roads or staging areas.
- 2029 ■ Irrigation systems.
- 2030 ■ Studies not directly related to the design and implementation of a proposed mitigation
- 2031 project.
- 2032 ■ Preparedness measures and response equipment (e.g., construction of emergency
- 2033 operations centers and fire stations, response training, interoperable communications
- 2034 equipment).
- 2035 ■ Activities excluded from funding because of duplication of programs or duplication of
- 2036 benefits. For more information see [section K](#).
- 2037 FEMA may, at its discretion, choose not to fund activities subject to ongoing litigation if such litigation
- 2038 may affect the eligibility of the activity or may substantially delay implementation of the activity. All
- 2039 projects must also comply with any additional project-specific guidance provided in [Part 12](#).

2040 **F. Feasibility and Effectiveness**

2041 Subapplicants will have to document that their projects are feasible and effective at mitigating the

2042 risks for which the project was designed.¹⁰⁰ In the project narrative, the subapplicant may need to

2043 demonstrate the engineering practices, established codes and standards, and modeling applicable

2044 to the project.

2045 For specific feasibility and effectiveness requirements by project type, see [Part 12](#).

¹⁰⁰ [44 CFR § 206.434\(c\)](#)

2046 **F.1. Hazard Mitigation Assistance Efficiencies**

2047 FEMA accepts the engineering design for a project if a licensed professional engineer (or other
2048 design professional licensed by the state to practice in the discipline being certified by the individual)
2049 certifies that the design meets the appropriate code or industry design and construction standards.
2050 FEMA will accept the certified engineering design in lieu of the FEMA comprehensive technical
2051 feasibility review. For example, if a licensed professional engineer certifies that the design of a
2052 community safe room project meets or exceeds FEMA P-361 criteria for design and construction,
2053 FEMA will not perform a detailed design review to ensure compliance with the criteria.

2054 **G. Environmental and Historic Preservation** 2055 **Requirements**

2056 HMA programs, and assistance awarded pursuant to these programs, must conform to [FEMA](#)
2057 [Directive 108-1: Environmental Planning and Historic Preservation Responsibilities and Program](#)
2058 [Requirements](#) (October 10, 2018), and with all applicable EHP laws, implementing regulations, and
2059 executive orders. This includes but is not limited to the [National Environmental Policy Act](#),¹⁰¹ the
2060 [National Historic Preservation Act](#),¹⁰² the [Endangered Species Act](#),¹⁰³ [Executive Order \(EO\) 11988:](#)
2061 [Floodplain Management \(May 24, 1977\)](#) as amended by [EO 13690](#), [EO 11990: Protection of](#)
2062 [Wetlands \(May 24, 1977\)](#), and [EO 12898: Federal Actions to Address Environmental Justice in](#)
2063 [Minority Populations and Low-Income Populations](#) (February 11, 1994). By taking the proposed
2064 project's impacts to the human environment into account in the decision-making process, EHP
2065 requirements ensure that reasonable alternatives are considered. All activities must comply with all
2066 federal laws, regulations and executive orders applicable to the environment and historic
2067 preservation. To ensure compliance with all EHP laws, regulations and executive orders, additional
2068 EHP conditions may be included in the award agreement.

2069 FEMA has the responsibility to ensure a project complies with federal laws, regulations and executive
2070 orders related to EHP, which includes coordination with other federal and state agencies and
2071 consultation with tribal governments. Applicants and subapplicants should assist FEMA by identifying
2072 EHP reviews previously completed by other agencies, gathering data, and reaching out to
2073 stakeholders and regulatory agencies for pertinent information. If EHP issues are identified, the
2074 applicant and subapplicant should initiate coordination with the relevant federal and state agencies
2075 as early in the project planning stages as possible to address any potential EHP issues associated
2076 with proposed activities. This coordination does not substitute for, and shall not be interpreted to
2077 mean, formal consultation has occurred between FEMA and the applicable federal/state agency or
2078 tribal government.

¹⁰¹ Public Law 91-190 (January 1, 1970), [42 U.S.C. § 4321](#)

¹⁰² Public Law 89-665 (October 15, 1966), [36 CFR part 800](#)

¹⁰³ Public Law 93-205 (December 28, 1973), [16 U.S.C. § 1531](#)

2079 Below is a general summary of the EHP compliance review process before a federal award may be
2080 made.

2081 FEMA will:

2082 ▪ Evaluate any potential impacts to EHP resources and provide the required information and
2083 documentation to identify the impact on these resources.

2084 ▪ Complete any required consultation and/or coordination with the appropriate agencies (e.g.,
2085 the state/tribal Historic Preservation Office, the U.S. Fish and Wildlife Service and the
2086 National Marine Fisheries Service) or tribal governments to evaluate potential effects of the
2087 proposed project and to identify any measures necessary to avoid or minimize these effects.

2088 ▪ Complete an evaluation of, and document alternatives to, the proposed action that will avoid
2089 or minimize these impacts, including consideration of the environmental impact of taking no
2090 action.

2091 ▪ Demonstrate that the project will incorporate any EHP mitigation measures required to
2092 mitigate the adverse effects on EHP resources.

2093 ▪ Ensure all EHP projects costs, including the costs of known measures to treat adverse
2094 effects, are reflected in the project budget estimate.

2095 EHP compliance considers and documents the following resource types or actions: biological, water,
2096 coastal, pollution control, debris management, socioeconomic, historical and cultural.

2097 Applicants and subapplicants may apply for projects that are a functional portion of a long-term
2098 solution. If this approach is taken, each project must be able to function independently and meet all
2099 HMA project eligibility requirements, EHP compliance included. Applicants should include EHP
2100 reviews, surveys or studies previously completed as part of the planning process or for other related
2101 projects that may be able to help FEMA assess the proposed project with their application.

2102 FEMA is responsible for reviewing connected actions associated with a proposed project, even if the
2103 agency is not funding the connected action. Applicants and subapplicants should include information
2104 on actions connected to the proposed project in the application even if FEMA is not funding the
2105 connected action.

2106 Actions are connected if they:

2107 ▪ Automatically trigger other actions that may require environmental impact statements.

2108 ▪ Cannot or will not proceed unless other actions are taken previously or simultaneously.

- 2109 ▪ Are interdependent parts of a larger action and depend on the larger action for their
2110 justification.¹⁰⁴

2111 Assistance will not be awarded and the applicant/subapplicant may not initiate the project, other
2112 than planning or preparatory work not involving construction or alteration of the land, until FEMA has
2113 completed this review and determines that the project, when completed, will comply with all EHP
2114 laws, regulations and executive orders.

2115 FEMA developed guidance to assist in completing the EHP information section of a project
2116 subapplication, including online training and information about historic preservation. Technical
2117 assistance is also available through the FEMA regional offices, via the toll-free Project Technical
2118 Assistance for EHP Helpline 866-222-3580, or via email at ehphelpline@fema.dhs.gov.

2119  EHP Resources

- 2120 ▪ Environmental & Historic Preservation Grant Preparation Resources:
2121 [https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
2122 [resources](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
 - 2123 ▪ FEMA Directive 108-1: *Environmental Planning and Historic Preservation Responsibilities*
2124 and Program Requirements [https://www.fema.gov/sites/default/files/2020-](https://www.fema.gov/sites/default/files/2020-07/fema_ehp_requirements_2018.pdf)
2125 [07/fema_ehp_requirements_2018.pdf](https://www.fema.gov/sites/default/files/2020-07/fema_ehp_requirements_2018.pdf)
 - 2126 ▪ National Environmental Policy Act: [https://www.fema.gov/emergency-](https://www.fema.gov/emergency-managers/practitioners/environmental-historic/laws/nepa)
2127 [managers/practitioners/environmental-historic/laws/nepa](https://www.fema.gov/emergency-managers/practitioners/environmental-historic/laws/nepa)
 - 2128 ▪ National Historic Preservation Act: [https://www.fema.gov/emergency-](https://www.fema.gov/emergency-managers/practitioners/environmental-historic/laws/nhpa)
2129 [managers/practitioners/environmental-historic/laws/nhpa](https://www.fema.gov/emergency-managers/practitioners/environmental-historic/laws/nhpa)
 - 2130 ▪ Endangered Species Act: <https://www.fws.gov/law/endangered-species-act>
 - 2131 ▪ Executive Order 11988: *Floodplain Management* [https://www.archives.gov/federal-](https://www.archives.gov/federal-register/codification/executive-order/11988.html)
2132 [register/codification/executive-order/11988.html](https://www.archives.gov/federal-register/codification/executive-order/11988.html)
 - 2133 ▪ Executive Order 11990: *Protection of Wetlands* [https://www.archives.gov/federal-](https://www.archives.gov/federal-register/codification/executive-order/11990.html)
2134 [register/codification/executive-order/11990.html](https://www.archives.gov/federal-register/codification/executive-order/11990.html)
 - 2135 ▪ Executive Order 12898: *Federal Actions to Address Environmental Justice in Minority*
2136 *Populations and Low-Income Populations* [https://www.archives.gov/files/federal-](https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf)
2137 [register/executive-orders/pdf/12898.pdf](https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf)
- 2138 For a comprehensive list of EHP resources, see the FEMA EHP webpage:
2139 <https://www.fema.gov/emergency-managers/practitioners/environmental-historic/laws>.

¹⁰⁴ [40 CFR 1501.9\(e\)\(1\)](#).

2140 **G.1. Floodplain Management and Protection of Wetlands**

2141 All activities assisted by HMA programs must conform to FEMA regulations on floodplain
2142 management and protection of wetlands in [44 CFR part 9](#) and the eight-step decision-making
2143 process (see [Figure 5](#)). Proposed actions located in the 1-percent annual chance floodplain (or 0.2-
2144 percent annual chance floodplain for critical actions), and proposed actions that have the potential
2145 to affect or be affected by a floodplain or wetland will only be eligible for an award or subaward if the
2146 applicant or subapplicant demonstrates that there is no practicable alternative to locating the action
2147 in a floodplain or wetland in accordance with [44 CFR § 9.9-11](#).

2148 A critical action is an action for which even a slight chance of flooding poses too great of a risk. It
2149 may or may not be associated with a critical facility.¹⁰⁵ FEMA is responsible for determining if an
2150 action is a critical action. If FEMA identifies a critical action, FEMA must evaluate potential harm to
2151 the action from the 0.2-percent annual chance flood.

2152 **Critical Action Definition**

2153 Critical actions are defined in [44 CFR § 9.4](#), which includes examples of actions for which even a
2154 slight chance of flooding is too great. If an action is not specified in [44 CFR part 9](#), FEMA uses
2155 the U.S. Water Resource Council Floodplain Management Guidelines for Implementing [Executive](#)
2156 [Order \(EO\) 11988](#), *Floodplain Management* (May 24, 1977) as amended by [EO 13690](#) and the
2157 following series of questions about the subject structure or facility to determine whether a
2158 proposed action is deemed a critical action:

- 2159 ▪ If flooded, would the proposed action create an added dimension to the disaster, such as for
2160 liquefied natural gas terminals and facilities producing and storing highly volatile, toxic or
2161 water-reactive materials?
- 2162 ▪ Given the flood warning lead-time available, would the occupants of buildings such as
2163 hospitals, schools and nursing homes be sufficiently mobile to avoid loss of life and injury?
- 2164 ▪ Would essential and irreplaceable records, utilities and/or emergency services be lost or
2165 become inoperative if flooded?

2166 If any of the answers are “yes,” then the proposed action is a critical action.

2167
2168 HMA cannot be used to assist new construction or substantial improvements in a floodway or new
2169 construction in a Coastal High Hazard Area unless it constitutes a functionally dependent use or
2170 facilitates an open space use.¹⁰⁶ Substantial improvement is defined as any reconstruction,

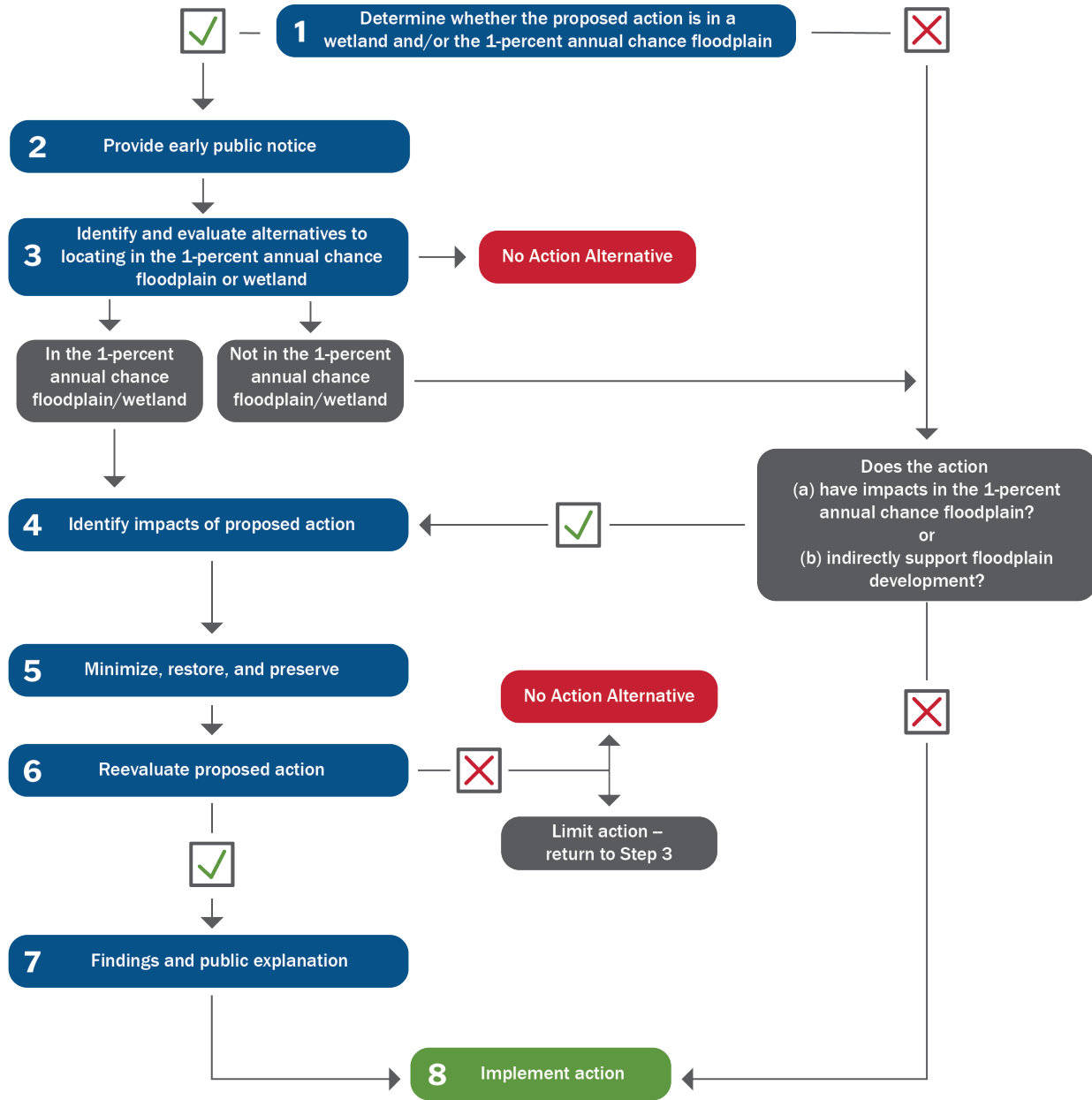
¹⁰⁵ Critical actions and critical facilities are not used interchangeably in the regulation but have specific meanings. Critical facilities are structures and institutions that are deemed by the local community and other jurisdictions as critical to the continuity of the community before, during and after an event. Although the affected jurisdiction has the primary responsibility for determining what structures and institutions are critical facilities, FEMA reserves the right to make a final determination as needed to support the review and approval of an HMA project application.

¹⁰⁶ [44 CFR § 9.11\(d\)](#)

2171 rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds 50
2172 percent of the market value of the structure before the start of construction of the improvement.¹⁰⁷
2173 However, the costs to elevate or floodproof a damaged structure or facility are not included in
2174 determining whether the substantial improvement threshold is triggered.

¹⁰⁷ [44 CFR § 9.4.](#)

Floodplain Management Decision-Making Process



Note: Substitute “0.2-percent annual chance floodplain” for “1-percent annual chance floodplain” for critical actions in all eight steps.

2175

2176
2177

Figure 5. Eight-Step Decision-Making Process for Floodplain Management Considerations and Protection of Wetlands

2178

2179 H. National Flood Insurance Program Eligibility 2180 Requirements

2181 HMA eligibility is related to the National Flood Insurance Program (NFIP) as follows:

- 2182 ▪ **Applicant and subapplicant eligibility:** States, state agencies, tribal governments and
2183 communities participating in the NFIP may apply for FMA planning and project awards and
2184 subawards and associated management costs. Communities withdrawn, suspended, on
2185 probation or not participating in the NFIP are not eligible to apply for FMA. Certain political
2186 subdivisions (i.e., regional flood control districts or county governments) may apply and act
2187 as subrecipients if they are part of a community that is participating in the NFIP where the
2188 political subdivision provides zoning and building code enforcement or planning and
2189 community development professional services for that community.
- 2190 ▪ **Mitigation project eligibility:** HMGP, HMGP Post Fire and BRIC subapplications for mitigation
2191 projects sited within a SFHA are eligible only if the jurisdiction in which the project is located
2192 is participating in the NFIP. There is no NFIP participation requirement for HMGP, HMGP Post
2193 Fire and BRIC subapplications for mitigation projects located outside of the SFHA.
- 2194 ▪ **Mitigation planning eligibility:** There are no NFIP participation requirements for HMGP, HMGP
2195 Post Fire and BRIC hazard mitigation planning subapplications. However, under FMA, the
2196 subapplicant and the communities within the planning scope must be participating in the
2197 NFIP to be eligible for planning assistance.
- 2198 ▪ **Property eligibility:** Properties included in a project subapplication for FMA assistance must
2199 be NFIP insured at the time of application start date.¹⁰⁸ Flood insurance must be maintained
2200 for the life of the structure.

2201 H.1. Special Flood Hazard Area Requirements

2202 For structures in the SFHA during or at the time of project completion, flood insurance must be
2203 maintained after the completion of the mitigation project for the life of the structure to an amount at
2204 least equal to the project cost or to the maximum limit of coverage made available with respect to
2205 the particular property, whichever is less.¹⁰⁹ The maximum limit of coverage made available is
2206 defined as the replacement cost value of the structure up to \$250,000 for residential and \$500,000
2207 for non-residential. Insurance coverage on the property must be maintained during the life of the
2208 property regardless of the transfer of ownership of such property.

2209 The subrecipient (or property owner) must legally record, with the county or appropriate jurisdiction's
2210 land records, a notice that includes the name of the current property owner (including book/page

¹⁰⁸ [44 CFR § 77.6\(a\)\(2\)](#).

¹⁰⁹ [42 U.S.C. § 4012a\(a\)](#)

2211 reference to record of current title, if readily available), a legal description of the property and the
 2212 following notice of flood insurance requirements:

2213 This property has received federal hazard mitigation assistance. Federal law requires that
 2214 flood insurance coverage on this structure must be maintained during the life of the
 2215 property regardless of transfer of ownership of such property. Pursuant to 42 U.S.C. §
 2216 5154a, notwithstanding any other provision of law, no federal disaster relief assistance
 2217 made available in a flood disaster area may be used to make a payment (including any loan
 2218 assistance payment) to a person for repair, replacement, or restoration for damage to any
 2219 personal, residential, or commercial property if that person at any time has received flood
 2220 disaster assistance that was conditional on the person first having obtained flood insurance
 2221 under applicable federal law and subsequently having failed to obtain and maintain flood
 2222 insurance as required under applicable federal law on such property. The property owner is
 2223 also required to maintain this property in accordance with the floodplain management
 2224 criteria of 44 CFR § 60.3 and any city/county ordinance.

2225 Applicants/subapplicants receiving assistance for projects sited in an SFHA must ensure that these
 2226 requirements are met by requesting that the participating property owner(s) sign an
 2227 *Acknowledgement of Conditions for Mitigation of Property in an SFHA with FEMA Grant Funds* form
 2228 and providing the form to FEMA prior to award or final approval. This form is available on the FEMA
 2229 website or can be provided by the appropriate FEMA regional office. Properties that do not meet
 2230 these requirements will not be eligible to receive assistance under the HMA programs.

2231 If an approved HMA project affects the accuracy of an applicable Flood Insurance Rate Map or
 2232 requires a map amendment to meet a locally adopted floodplain management ordinance, the
 2233 subrecipient is responsible for ensuring the appropriate map amendments or revisions are made.
 2234 Costs associated with these map amendments are to be identified in the budget section of a
 2235 subaward application and may be eligible costs under the HMA programs.

2236 **I. Cost Eligibility**

2237 Costs are evaluated both during the application review stage as well as when recipients submit
 2238 claims and during monitoring activities completed by FEMA. To be eligible, costs must meet the
 2239 following criteria:¹¹⁰

- 2240 ▪ Be necessary and reasonable to accomplish the work properly and efficiently and be
 2241 allocable according to the cost principles.

- 2242 ▪ Conform to any limitations or exclusion set forth in the award. Such limits can be statutory or
 2243 policy based and are typically set forth in the award or subaward terms that include the
 2244 program's NOFO announcement by reference.

¹¹⁰ [2 CFR § 200.403](#)

- 2245 ▪ Be consistent with the recipient and subrecipient policies and procedures governing the
2246 expenditures and activities that are not charged to federal awards. Recipients and
2247 subrecipients are not allowed to charge costs to federal awards if those costs are prohibited
2248 by their own policies and procedures.

 - 2249 ▪ Be consistent under the recipient and subrecipient policies and practices with respect to
2250 classifying them as a direct or indirect cost. For example, recipients may only charge costs to
2251 the federal award as indirect costs and the recipient and subrecipient consistently records
2252 those same costs as indirect costs when no federal award is involved or is being charged.

 - 2253 ▪ Be determined in accordance with generally accepted accounting principles, as applicable to
2254 the recipient and subrecipient.

 - 2255 ▪ Not be federally financed as part of the recipient’s cost share.

 - 2256 ▪ Be adequately documented.

 - 2257 ▪ Be incurred during the approved budget period.
- 2258 In addition, eligible costs must be reduced by applicable credits,¹¹¹ such as duplication of benefits
2259 (e.g., insurance claims)¹¹² and program income.¹¹³

2260 **I.1. Reasonable Costs**

2261 A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by
2262 a prudent person under the circumstances prevailing at the time the non-federal entity decides to
2263 incur the cost.¹¹⁴

2264 **I.1.1. REASONABLE COSTS ANALYSIS**

2265 In conducting a reasonable cost analysis, FEMA performs a preliminary review of the documentation
2266 to assess the complexity of the activity and the expertise required to complete the analysis. If
2267 specialized expertise is required, a subject matter expert with the appropriate specialized skills,
2268 knowledge, experience or capability in the appropriate field such as engineering, architecture or cost
2269 estimating conducts the analysis.

2270 Considerations include:

¹¹¹ [Stafford Act § 312](#) and [2 CFR § 200.406](#)

¹¹² [Stafford Act § 312](#)

¹¹³ [Stafford Act § 312](#)

¹¹⁴ [2 CFR § 200.404](#)

- 2271 ▪ Whether the costs were of a type generally recognized as ordinary and necessary for the
2272 operation of a non-federal entity or the proper and efficient performance of the award.
- 2273 ▪ Restraints or requirements imposed by sound business practices, arm’s-length bargaining,
2274 applicable laws and regulations, and terms and conditions of the award.
- 2275 ▪ Market prices.
- 2276 ▪ Whether the non-federal entity acted prudently in the circumstances concerning its
2277 responsibilities.
- 2278 ▪ Whether the non-federal entity significantly deviated from its established practices and
2279 policies when incurring costs that may have unjustifiably increased the award’s costs.¹¹⁵
- 2280 FEMA determines reasonableness by evaluating:
- 2281 ▪ Whether the skill level and level of effort are necessary to complete the required activity.¹¹⁶ If
2282 the type of employee or skill level is not appropriate for the specific task, FEMA limits HMA to
2283 a rate based on the appropriate employee type or skill level. For complex activities, staff with
2284 a higher level of technical proficiency and experience may be appropriate.
- 2285 ▪ Whether the individuals concerned acted with prudence under the circumstances
2286 considering their responsibility to the non-federal entity, its employees, its students or
2287 membership, the public and the federal government.¹¹⁷
- 2288 ▪ Whether the applicant complied with procurement requirements ([section K](#)). FEMA generally
2289 considers contract costs reasonable when the non-federal entity adheres to full and open
2290 competition under applicable federal procurement requirements, and the scope of services
2291 or work in the contract and level of effort is consistent with respect to the eligible scope of
2292 work. FEMA evaluates reasonableness when price competition is lacking or when the
2293 selection was noncompliant with the applicable procurement under award requirements
2294 even though there may have been price competition.
- 2295 ▪ Whether the non-federal entity selected the lowest responsible bidder based on the selection
2296 criteria. If the non-federal entity selected a contractor with a higher bid than others, it must
2297 substantiate its selection based on the selection criteria set forth in its request for proposal.
- 2298

¹¹⁵ [2 CFR § 200.404](#)

¹¹⁶ [2 CFR § 200.404](#)

¹¹⁷ [2 CFR § 200.404](#)

2299 FEMA generally considers the non-federal entity’s own labor, equipment and supply costs as
2300 reasonable provided the costs are consistent with the non-federal entity’s policies including but not
2301 limited to pay rates, labor policies and cost schedules used during its normal operations.

2302 The cost or price analysis is one component of documentation that FEMA may review as part of its
2303 evaluation of reasonable costs. If the non-federal entity does not submit a cost or price analysis,
2304 FEMA may evaluate the elements that would have been part of such analysis. The non-federal entity
2305 may need to provide this information if it is not included in the documentation submitted.

2306 FEMA will evaluate whether costs are comparable to the current market price for similar goods or
2307 services in the same geographical area.¹¹⁸ FEMA makes its determination based on one or more of
2308 the following:

- 2309 ▪ Historical documentation (previous contracts, invoices or other documentation). FEMA may
2310 compare costs to the non-federal entity’s historical costs for similar scope of work or items.
- 2311 ▪ Average costs in the area.
- 2312 ▪ Weighted average unit pricing. FEMA may determine the average costs in the area using
2313 weighted average unit prices. These consist of the average costs of historical bid tabulations
2314 and related specifications from competitive bid pricing solicitations respective to the area
2315 and usually includes all factors required to bid on public works projects, such as
2316 performance bonds, bid bonds, overhead and profit, and general conditions. The non-federal
2317 entity or respective state, territorial or regional agency, such as the state’s DOT may provide
2318 weighted average unit pricing and related specifications for FEMA’s review.
- 2319 ▪ Other non-federal entity activity costs. FEMA may compare the costs with other non-federal
2320 entity activities of similar scope of work and similar circumstances.
- 2321 ▪ Published unit costs from national cost-estimating databases. When using this method,
2322 FEMA confirms that the cost publication is current and the appropriate locality adjustment
2323 factor is applied. Industry cost estimating resources. When appropriate local data cannot be
2324 developed or obtained, FEMA uses industry-standard construction cost-estimating resources
2325 to prepare an estimate against which to evaluate the reasonableness of the non-federal
2326 entity’s actual costs. These costing methods include but may not be limited to RSMeans, BNI
2327 Costbooks, Marshall and Swift, and Sweet’s Unit Cost Guide, which are widely accepted in
2328 the industry and available for use nationwide.
- 2329 ▪ Federal, state or territorial unit costs. When industry-standard construction cost estimating
2330 resources do not provide work items that are appropriate or applicable to the construction
2331 activities required to complete the project, FEMA considers local cost data from other federal

¹¹⁸ [2 CFR § 200.404\(c\)](#)

2332 agencies or state or territorial agencies responsible for the construction of similar facilities in
 2333 or near the locality.

2334 When a reasonable cost analysis has been conducted and costs appear high for an activity, FEMA
 2335 reviews the non-federal entity’s justification in the budget narrative, to determine whether any
 2336 additional factors justify the higher cost as a reasonable amount.

2337 The non-federal entity is responsible for providing documentation to demonstrate its claimed costs
 2338 are reasonable. Documentation may include, but is not limited to:

- 2339 ▪ Documentation showing current market price for similar goods or services, such as:
 - 2340 ○ Historical documentation.
 - 2341 ○ Average costs in the area.
 - 2342 ○ Published unit costs from national cost estimating databases.
- 2343 ▪ Documentation supporting necessity of unique services or extraordinary level of effort.
- 2344 ▪ Documentation supporting challenging circumstances, such as news stories or supply chain
 2345 vendor reports.

2346 If FEMA determines any of the costs to be unreasonable based on its evaluation after completing the
 2347 evaluation and ensuring that all appropriate costs and factors are included as described above,
 2348 FEMA may disallow all or part of the costs by adjusting eligible assistance to an amount it
 2349 determines to be reasonable. When determining the reasonable amount, FEMA may use the least-
 2350 cost alternative, the lowest bid received by the applicant, or the pricing of another applicant’s
 2351 properly procured and selected contractor.

2352 J. Cost Share

2353 Under the HMA programs, the total cost to implement approved mitigation activities is generally
 2354 assisted by a combination of federal and non-federal sources. Cost share means the portion of
 2355 activity costs not paid by federal assistance.¹¹⁹ Both the federal and non-federal cost shares must be
 2356 for eligible costs used in direct support of the approved activities in the HMA Guide and the award.
 2357 Contributions of cash donated or third-party in-kind services, materials or any combination thereof
 2358 may be accepted as part of the non-federal cost share.

2359 FEMA administers cost share requirements consistent with [2 CFR § 200.1](#), [2 CFR § 200.306](#) and [2](#)
 2360 [CFR § 200.434](#). To meet cost share requirements, the non-federal contributions must be verifiable

¹¹⁹ [2 CFR § 200.1](#)

2361 from the subrecipient’s records; reasonable, allowable, allocable and necessary under the federal
2362 program; and compliant with all federal requirements and regulations.

2363 In general, HMA may be used to pay up to 75 percent of the eligible activity costs.¹²⁰ The remaining
2364 25 percent of eligible activity costs are derived from non-federal sources. Exceptions to the 75
2365 percent federal and 25 percent non-federal share are as follows:

2366 **HMGP and HMGP Post Fire**

- 2367 ▪ FEMA provides 100 percent cost share for management costs.

2368 **BRIC**

- 2369 ▪ Small impoverished communities may be eligible for up to a 90 percent federal cost share.
2370 For information about small impoverished communities, see [Part 10](#).

- 2371 ▪ FEMA provides 100 percent cost share for management costs.

2372 **FMA**

- 2373 ▪ FEMA may contribute up to 100 percent federal cost share for severe repetitive loss
2374 structures.¹²¹

- 2375 ▪ FEMA may contribute up to 90 percent federal cost share for repetitive loss structures.

2376 For BRIC and FMA, the appropriate year’s NOFO may contain additional information about cost share
2377 availability.

2378 Structures with different federal cost share can be submitted in a single project subapplication. The
2379 overall project federal cost share documented in the cost share section of the project subapplication
2380 should reflect the combined federal cost share of the structures.

2381 **Insular areas, including American Samoa, Guam, the Northern Mariana Islands and the U.S. Virgin**
2382 **Islands¹²²**

- 2383 ▪ FEMA automatically waives the non-federal cost share when the non-federal cost share for
2384 the entire award is less than \$200,000 and not an individual subaward.

- 2385 ▪ For HMGP, if the non-federal cost share for the entire award is \$200,000 or greater, FEMA
2386 may waive all or part of the cost share; such a waiver is usually consistent with that provided

¹²⁰ For HMGP see [42 U.S.C. § 5170c\(a\)](#) and [44 CFR § 206.432\(c\)](#); for BRIC see [42 U.S.C. § 5133\(h\)](#); for FMA see [42 U.S.C. § 4104c\(d\)](#) and [44 CFR § 77.4\(b\)\(3\)](#)

¹²¹ [44 CFR § 77.4\(b\)\(1\)](#)

¹²² [48 U.S.C. § 1469a](#), [2 CFR § 200.306\(b\)](#)

2387 for PA under the major disaster declaration. If FEMA does not waive the cost share, the
 2388 insular area must pay the entire cost-share amount, not only the amount greater than
 2389 \$200,000.

2390 ▪ For FMA and BRIC, if the non-federal cost share for the entire award is \$200,000 or greater,
 2391 FEMA may waive all or part of the non-federal cost share at the request of the recipient. The
 2392 recipient may request 100 percent cost share in its application.

2393 Management costs are any indirect costs, any direct administrative costs, and any other
 2394 administrative expenses associated with the administration of HMA awards and subawards.
 2395 Management costs are provided under HMGP, HMGP Post Fire, BRIC and FMA.

2396 **J.1. Global Match**

2397 Global match allows flexibility in which the non-federal cost share does not need to be 25 percent for
 2398 each individual subaward; rather, the non-federal cost share for all the applicant’s submitted
 2399 subawards combined must equal 25 percent of the award. Global match allows the applicant to use
 2400 any cost share match that exceeds the minimum requirement (referred to as overmatch) from
 2401 certain subawards to alleviate the financial burden on other activities. For more information on
 2402 global match, see [Part 10, A.11. HMGP: Cost Share and Global Match](#) and [B.9. HMGP Post Fire: Cost](#)
 2403 [Share and Global Match](#).

2404 **J.2. Federal Assistance Allowed to be Used as Non-Federal Cost Share**

2405 In general, the non-federal cost share requirement may not be met with assistance from other
 2406 federal agencies; however, some authorizing statutes explicitly allow some federal assistance to be
 2407 used as a cost share for other federal grants.¹²³ For example, the U.S. Department of Housing and
 2408 Urban Development Community Development Block Grants program and the U.S. Department of
 2409 Defense Readiness and Environmental Protection Integration program are authorized to allow
 2410 recipients to use program funds as non-federal cost share, and these funds can be applied to the
 2411 HMA non-federal cost share.¹²⁴ Federal assistance that is used to meet a non-federal cost share
 2412 requirement must meet the eligibility and compliance requirements of both the other federal source
 2413 program and the HMA program.¹²⁵ More information on allowable funds for non-federal cost share
 2414 can be found in the [Hazard Mitigation Assistance Cost Share Guide](#).

2415 **J.3. Increased Cost of Compliance as Non-federal Cost Share**

2416 Increased Cost of Compliance coverage is available to most NFIP policyholders and can be used as
 2417 non-federal cost share. To qualify for Increased Cost of Compliance, a community must determine

¹²³ Section 312 of the [Stafford Act](#), [42 U.S.C. § 5155](#), [2 CFR § 200.306\(b\)\(5\)](#)

¹²⁴ [42 U.S.C. § 5305\(a\)\(9\)](#); [10 U.S.C. § 2684\(a\)\(h\)](#)

¹²⁵ See the [Community Development Block Grant](#) and [Readiness and Environmental Protection Integration](#) program websites for more information about their specific program requirements.

2418 that a home or business has sustained substantial damage or the structure meets the local
 2419 community’s repetitive loss provision. The NFIP Increased Cost of Compliance claim payment from a
 2420 flood event may be used to contribute to the non-federal cost share requirements so long as the
 2421 claim is made within the timelines allowed by the NFIP. Increased Cost of Compliance payments can
 2422 only be used for costs that are eligible for Increased Cost of Compliance benefits, which are
 2423 elevation, floodproofing, relocation or demolition (or any combination of these activities). For
 2424 example, Increased Cost of Compliance coverage cannot pay for property acquisition but can pay for
 2425 structure demolition or relocation. In addition, federal assistance cannot be provided where
 2426 Increased Cost of Compliance assistance is available. If the Increased Cost of Compliance payment
 2427 exceeds the required non-federal share, the federal assistance award will be reduced to the
 2428 difference between the cost of the activity and the Increased Cost of Compliance payment.

2429 If an Increased Cost of Compliance payment is used as a subapplicant’s non-federal cost share, the
 2430 NFIP policyholder must assign that part of the Increased Cost of Compliance benefit that pertains to
 2431 the property to the subapplicant. The NFIP policyholder can only assign the Increased Cost of
 2432 Compliance benefit to the subapplicant; in no case can the policyholder assign the Increased Cost of
 2433 Compliance benefit to another individual. Steps for the assignment of Increased Cost of Compliance
 2434 coverage can be found in [FEMA P-1080](#): Answers to Frequently Asked Questions About Increased
 2435 Cost of Compliance (February 2017).

2436 In some cases, individual policyholders can take advantage of federal assistance to supplement the
 2437 cost of mitigation activities in their community. Policyholders can assign their Increased Cost of
 2438 Compliance benefits to their community and enable the community to file a single claim on behalf of
 2439 a community mitigation project. FEMA will count the Increased Cost of Compliance claim monies as
 2440 non-federal matching assistance in mitigation subapplications because Increased Cost of
 2441 Compliance coverage is a direct contract between the policyholder and the insurer. The community
 2442 can then use FEMA mitigation assistance to help pay for any additional portion of the cost of
 2443 elevation, floodproofing, relocation or demolition that is more than the Increased Cost of Compliance
 2444 claim payment. Policyholders and community officials must work closely together at every stage of
 2445 this process.

2446 Individual participation in a FEMA-assisted community mitigation project is voluntary and the
 2447 community is required to provide mitigation assistance to any property owner whose Increased Cost
 2448 of Compliance payment was counted toward the matching assistance.

2449 **J.3.1. STEPS FOR THE ASSIGNMENT OF COVERAGE D—INCREASED COST OF**
 2450 **COMPLIANCE COVERAGE**

2451 Policyholders should follow these steps for the assignment of Coverage D:

- 2452 1. The policyholder consents to the assignment of the Increased Cost of Compliance claim
 2453 payment.
- 2454 2. The community official provides the policyholder with an Assignment of Coverage D Form.

- 2455 3. The policyholder signs the form and provides the signed form to the community official.
- 2456 4. The community official sends a copy of the completed form, along with the community’s signed
- 2457 declaration of substantial damage to the NFIP Bureau and Statistical Agent at the following
- 2458 address:

2459 NFIP Bureau and Statistical Agent

2460 8400 Corporate Drive, Suite 350

2461 Landover, MD 20785

- 2462 5. The NFIP Bureau and Statistical Agent maintains a database of the increased cost of compliance
- 2463 information submitted by the community. The Bureau then sends the documents to the
- 2464 appropriate Write Your Own company with instructions. The company will then assign an
- 2465 adjuster.
- 2466 6. The assigned adjuster contacts the policyholder to notify them of receipt of the claim and
- 2467 contacts the local community official to coordinate and help complete the claim.
- 2468 7. The adjuster receives/reviews the contract for demolition, elevation, relocation or floodproofing
- 2469 to determine the cost.
- 2470 8. The adjuster has the community official sign the proof of loss once the claim value has been
- 2471 determined.
- 2472 9. The adjuster sends the final report, along with the proof of loss, to the insurance company for
- 2473 payment.
- 2474 10. The insurance company issues the check to the community and advises the NFIP Bureau and
- 2475 Statistical Agent of the amount of the claim payment.

2476 For additional information on increased cost of compliance, visit FEMA’s [“Increased Cost of](#)

2477 [Compliance Coverage” webpage](#).



Increased Cost of Compliance Resources

- 2478
- 2479 ▪ Increased Cost of Compliance Coverage: [https://www.fema.gov/floodplain-](https://www.fema.gov/floodplain-management/financial-help/increased-cost-compliance)
 - 2480 [management/financial-help/increased-cost-compliance](https://www.fema.gov/floodplain-management/financial-help/increased-cost-compliance)
 - 2481 ▪ FEMA P-1080: *Answers to Frequently Asked Questions About Increased Cost of*
 - 2482 *Compliance* [https://www.fema.gov/sites/default/files/2020-](https://www.fema.gov/sites/default/files/2020-11/fema_p1080_icc_faq_20170817.pdf)
 - 2483 [11/fema_p1080_icc_faq_20170817.pdf](https://www.fema.gov/sites/default/files/2020-11/fema_p1080_icc_faq_20170817.pdf)

K. Additional Requirements

2484 This section presents information on non-discrimination compliance, conflict of interest,

2485 procurements by states and other entities, and duplication of programs.

2486

2487 **K.1. Nondiscrimination Compliance**

2488 In accordance with section 308 of the [Stafford Act](#),¹²⁶ sections 503, 504 and 508 of the
 2489 Rehabilitation Act of 1973, as amended;¹²⁷ and Title VI of the Civil Rights Act of 1964,¹²⁸ all HMA
 2490 programs are administered in an equitable and impartial manner, without discrimination on the
 2491 grounds of race, color, religion, national origin, sex, age, disability, English proficiency or economic
 2492 status. In addition, federal assistance distributed by state and local governments is to be
 2493 implemented in compliance with all applicable laws.

2494 Applicants and subapplicants must ensure that no discrimination is practiced in the implementation
 2495 of HMA programs. Applicants and subapplicants must consider fairness, equity and equal access
 2496 when prioritizing and selecting subapplications to submit with their grant application.

2497 Subapplicants also must ensure fairness and equal access to property owners and individuals that
 2498 benefit from mitigation activities.

2499 **K.2. Conflicts of Interest**

2500 Conflicts of interest may arise when FEMA makes a federal award. For example, a conflict of interest
 2501 may occur in situations where a FEMA employee, officer, or agent; any members of the individual's
 2502 immediate family; or the individual's partner has a close personal, business, or professional
 2503 relationship with an applicant, subapplicant, recipient, subrecipient or employee.

2504 The applicant/recipient and subapplicant/subrecipient must maintain written standards of conduct
 2505 covering conflicts of interest and governing the performance of its employees engaged in the
 2506 selection, award and administration of subawards and procurement contracts.¹²⁹ No employee,
 2507 officer or agent may participate in the selection, award, or administration of a subaward or contract
 2508 supported by a federal award if that person has a real or apparent conflict of interest.

2509 The recipient must disclose to FEMA in writing any real or potential conflict of interest, as defined by
 2510 the federal, state, local or tribal statutes or regulations or their own existing policies, that arise during
 2511 the administration of the federal award. Recipients must disclose any real or potential conflicts to
 2512 the federal approving official within 15 calendar days of learning of the conflict of interest. Similarly,
 2513 subrecipients must disclose any real or potential conflict of interest to the recipient as required by
 2514 the recipient's conflict of interest policies or any applicable state, local or tribal statutes or
 2515 regulations. This requirement starts when the application period opens, continues during the entire
 2516 period of performance, and ends when the last audit is completed.

¹²⁶ [42 U.S.C. § 5151](#)

¹²⁷ Public Law 93-112 (September 26, 1973), [42 U.S.C. § 701](#)

¹²⁸ Public Law 88-352 (July 2, 1964), [42 U.S.C. § 2000d](#)

¹²⁹ [2 CFR § 200.112](#), [2 CFR § 200.318\(c\)\(1\)](#)

2517 **K.3. Procurement**

2518 All applicants, subapplicants and non-federal entities must follow the requirements under the
2519 procurement regulations.¹³⁰ Federal procurement requirements for state and territorial government
2520 agencies are different from those for tribal and local government agencies and PNPs. This section
2521 provides information on federal procurement and contracting requirements.

2522 In the case of noncompliance, FEMA applies an appropriate remedy in accordance with its
2523 authorities.¹³¹ Additional procurement resources may be found on FEMA’s [“Contracting with Federal
2524 Funds for Goods and Services Before, During and After Disasters” webpage](#).

2525 **K.3.1. PROCUREMENT REQUIREMENTS FOR STATE AND TERRITORIAL GOVERNMENT**
2526 **ENTITIES**

2527 When procuring property and services under a federal award, state and territorial governments
2528 (acting as either a recipient or subrecipient) must comply with [2 CFR § 200.317](#), Procurement by
2529 States, which includes:

2530 ▪ Following the same policies and procedures used for procurements issued from non-federal
2531 assistance.

2532 ▪ Complying with the socioeconomic contracting steps in [2 CFR § 200.321](#), domestic
2533 preferences for procurement guidelines in [2 CFR § 200.322](#) and the U.S. Environmental
2534 Protection Agency (EPA) guidelines for procurement of recovered materials in [2 CFR §
2535 200.323](#).

2536 ▪ Including required provisions¹³² in all contracts awarded. Some provisions are based on
2537 sound contracting practices while others are required by federal law, executive orders and
2538 regulations.

2539 **K.3.2. PROCUREMENT AND CONTRACTING REQUIREMENTS FOR TRIBAL AND LOCAL**
2540 **GOVERNMENT AGENCIES AND PRIVATE NONPROFITS**

2541 Tribal recipients, tribal and local governments, and PNPs must comply with [2 CFR §§ 200.318-327](#)
2542 as well as:

2543 ▪ Their own documented procurement procedures.

2544 ▪ Applicable state, local, tribal and territorial government laws and regulations.

¹³⁰ [2 CFR §§ 200.317-327](#)

¹³¹ [2 CFR § 200.339](#)

¹³² [2 CFR part 200, Appendix II](#)

- 2545 ▪ Applicable federal laws and regulations.¹³³

2546 If a federal requirement is different from the state, local, tribal or territorial government requirement
2547 or the applicant’s own requirements, the applicant must use the requirement that allows for
2548 compliance at all levels. Additionally, territorial governments should consult their legal counsel when
2549 a project involves a public building or public works facility, as the Buy American Act may apply to the
2550 procurement process.

2551 **K.3.2.1. Pre-Procurement Considerations**

2552 Tribal and local governments and PNPs must:

- 2553 ▪ Establish or update written procurement procedures that reflect applicable state, local, tribal
2554 or territorial laws and regulations.¹³⁴
- 2555 ▪ Maintain required written standards of conduct covering conflicts of interest and governing
2556 the performance of employees who engage in the selection, award and administration of
2557 contracts.¹³⁵

2558 **K.3.2.2. General Federal Procurement Requirements**

2559 Federal procurement requirements for tribal and local governments and PNPs are found in [2 CFR §§](#)
2560 [200.318-327](#). The requirements include but are not limited to:

- 2561 ▪ Providing full and open competition.¹³⁶ Tribal government applicants may provide preference
2562 to Indian organizations or Indian-owned economic enterprises if the non-state, non-federal
2563 entity substantiates that it met the Indian Self-Determination and Education Assistance
2564 Act¹³⁷ requirements.
- 2565 ▪ Ensuring the use of small and minority businesses, women’s business enterprises and labor
2566 surplus area firms when possible by conducting the following steps:¹³⁸
- 2567 1. Place such organizations that are qualified on solicitation lists.
- 2568 2. Ensure such organizations are solicited whenever they are potential sources.
- 2569 3. Divide total requirements, when economically feasible, into smaller tasks or quantities.

¹³³ [2 CFR § 200.318](#)

¹³⁴ [2 CFR § 200.318\(a\)](#)

¹³⁵ [2 CFR § 200.318\(c\)\(1\)](#)

¹³⁶ [2 CFR § 200.319](#)

¹³⁷ Public Law 93-638 (January 4, 1975), [25 U.S.C. Chapter 46](#)

¹³⁸ [2 CFR § 200.321](#)

- 2570 4. Establish delivery schedules, where the requirement permits, which encourage their
2571 participation.
- 2572 5. Use the services and assistance, as appropriate, of the Small Business Administration
2573 and the Minority Business Development Agency of the Department of Commerce.
- 2574 6. Require prime contractor to conduct the above steps if subcontracting.¹³⁹
- 2575 ■ Performing a cost or price analysis in connection with every procurement action above the
2576 simplified acquisition threshold, including contract modifications. The nonstate, non-federal
2577 entity must make independent estimates before receiving bids or proposals.¹⁴⁰ Additionally,
2578 the nonstate, non-federal entity must negotiate profit as a separate element of the price
2579 when it performs a cost analysis and for each contract in which there is no price
2580 competition.¹⁴¹
- 2581 ■ Evaluating and documenting the contractor’s integrity, compliance with public policy, record
2582 of past performance, and financial and technical resources.
- 2583 ■ Ensuring the contractor was not suspended or debarred.¹⁴²
- 2584 ■ Prohibiting the use of statutorily or administratively imposed state, local or tribal geographic
2585 preferences in evaluating bids or proposals except where expressly encouraged by applicable
2586 federal law.¹⁴³
- 2587 ■ Excluding contractors that develop or draft specifications, requirements, statements of work,
2588 or invitations for bids or requests for proposals from competing for such procurements to
2589 ensure objective contractor performance and eliminate unfair competitive advantage.¹⁴⁴
- 2590 ■ Maintaining records to detail the history of the procurement including but not limited to:
- 2591 ○ Rationale for the method of procurement.
- 2592 ○ Selection of contract type.
- 2593 ○ Contractor selection or rejection.

¹³⁹ Tribal government applicants using the Indian Self-Determination and Education Assistance Act preference do not need to separately follow the six socioeconomic steps outlined above.

¹⁴⁰ [2 CFR § 200.324\(a\)](#)

¹⁴¹ [2 CFR § 200.324\(b\)](#)

¹⁴² [2 CFR § 200.318\(h\)](#)

¹⁴³ [2 CFR § 200.319\(c\)](#)

¹⁴⁴ [2 CFR § 200.319\(b\)](#)

- 2594 ○ The basis for the contract price.¹⁴⁵

2595 **K.3.2.3. Procurement Methods**

2596 Tribal and local governments and PNPs must use one of the following procurement methods:

- 2597 ▪ Micropurchase.
- 2598 ▪ Small purchase procedure.
- 2599 ▪ Sealed bid (formal advertising).
- 2600 ▪ Competitive proposal.
- 2601 ▪ Non-competitive proposal (sole source).¹⁴⁶

2602 **K.3.2.4. Non-Competitive Procurement**

2603 FEMA may reimburse costs incurred under a contract procured through a noncompetitive proposal,
2604 also referred to as sole source contract, only when one or more of the following circumstances apply:

- 2605 ▪ The aggregate dollar amount of the acquisition of property or services does not exceed the
2606 micro-purchase threshold.
- 2607 ▪ The item is only available from a single source.
- 2608 ▪ The public exigency or emergency for the requirement will not permit a delay resulting from
2609 competitive solicitation (this exception to competitive procurement is only for work
2610 specifically related to the circumstance and only while the circumstances exist). Applicants or
2611 subapplicants need to immediately begin the process of competitively procuring similar
2612 goods and services and transition to a competitively procured contract as soon as the
2613 circumstances cease to exist.
- 2614 ▪ FEMA or the pass-through entity expressly authorizes a non-competitive proposal in response
2615 to a written request from the subapplicant.
- 2616 ▪ After solicitation of several sources, competition is determined inadequate.¹⁴⁷

2617 For each noncompetitive procurement, non-state or non-federal entities must identify which of the
2618 four circumstances listed above apply and provide all the following information, documentation and
2619 justification:

¹⁴⁵ [2 CFR § 200.318\(i\)](#)

¹⁴⁶ [2 CFR § 200.320](#)

¹⁴⁷ [2 CFR § 200.320\(c\)](#)

- 2620 ▪ A brief description of the product or service being procured, including the expected amount
2621 of the procurement.

- 2622 ▪ Explanation of why a noncompetitive procurement is necessary. If there was a public
2623 exigency or emergency, the justification should explain the specific conditions and
2624 circumstances that clearly illustrate why competitive procurement would cause an
2625 unacceptable delay in addressing the public exigency or emergency. Failure to plan for the
2626 transition to competitive procurement cannot be the basis for continued use of non-
2627 competitive procurement based on public exigency or emergency.

- 2628 ▪ Length of time the noncompetitive contract will be used for the defined scope of work, and
2629 the impact on that scope of work should the non-competitively procured contract not be
2630 available for that amount of time (e.g., how long the applicant anticipates the exigency or
2631 emergency circumstances to continue, how long it would take to identify requirements and
2632 award a contract that complies with all procurement requirements, or how long it would take
2633 another contractor to reach the same level of competency).

- 2634 ▪ The specific steps taken to determine that the applicant could not have used, or did not use,
2635 full and open competition for the scope of work (e.g., research conducted to determine that
2636 there were limited qualified resources available that could meet the contract provisions).

- 2637 ▪ Any known conflicts of interest and any efforts that were made to identify potential conflicts
2638 of interest before the noncompetitive procurement occurred. If no efforts were made, explain
2639 why.

- 2640 ▪ Any other justifications.

2641 In the case of noncompliance with noncompetitive procurement requirements, FEMA applies an
2642 appropriate remedy in accordance with its authorities.¹⁴⁸

2643 **K.3.2.5. Federal Emergency Management Agency Review of a Pass-Through Entity's**
2644 **Approval of Non-Competitive Procurement**

2645 A pass-through entity may approve a subrecipient's written request to procure a product or service
2646 through a noncompetitive proposal method.¹⁴⁹ In cases where a pass-through entity approves a
2647 request to use a noncompetitive proposal, the approval must be consistent with all applicable state,
2648 local, and federally recognized tribal laws and regulations, as well as the pass-through entity's and
2649 subrecipient's written procurement standards. Additionally, pass-through entities' and subrecipients'
2650 procurements must continue to comply with the requirements, even in cases where the pass-through
2651 entity approves a request to use non-competitive proposals.

¹⁴⁸ [2 CFR § 200.339](#)

¹⁴⁹ [2 CFR § 200.320\(c\)\(4\)](#)

2652 FEMA may review a pass-through entity’s decision to allow a procurement using non-competitive
 2653 proposals, such as during the award monitoring process, in response to an audit finding or other
 2654 similar circumstances, or for the reasons specified in [2 CFR § 200.325](#). During its review, FEMA will
 2655 inspect the written procurement records for the transaction, including the rationale for the method of
 2656 procurement, selection of contract type, and contractor selection or rejection.

2657 FEMA will not substitute its judgment for that of the pass-through entity in cases where the pass-
 2658 through entity has documented justification for allowing a non-competitive procurement. However,
 2659 FEMA will review the documented justification for approving the non-competitive procurement to
 2660 ensure it otherwise complies with the requirements of [2 CFR §§ 200.318-327](#). FEMA may also
 2661 require the pass-through entity to demonstrate that the decision to approve the non-competitive
 2662 proposal is consistent with applicable state, local, and federally recognized tribal laws and
 2663 regulations, as well as all applicable written procurement standards. FEMA may also assess whether
 2664 the costs incurred under the procurement are reasonable.

2665 **K.3.3. PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE**
 2666 **SERVICES OR EQUIPMENT**

2667 According to [2 CFR § 200.216](#),¹⁵⁰ recipients and subrecipients, as well as their contractors and
 2668 subcontractors, may not obligate or expend any FEMA award funds to:

- 2669 ▪ Procure or obtain any equipment, system or service that uses covered telecommunications
 2670 equipment or services as a substantial or essential component of any system or as critical
 2671 technology of any system.
- 2672 ▪ Enter into, extend or renew a contract to procure or obtain equipment, systems or service
 2673 that use covered telecommunications equipment or services as a substantial or essential
 2674 component of any system, or as critical technology of any system.
- 2675 ▪ Enter into, extend or renew contracts with entities that use covered telecommunications
 2676 equipment or services as a substantial or essential component of any system, or as critical
 2677 technology as part of any system.

2678 Covered telecommunications and surveillance equipment are described in section 889(b)(1) of the
 2679 [John S. McCain National Defense Authorization Act for Fiscal Year 2019](#) and [2 CFR § 200.216](#).¹⁵¹

2680 FEMA recipients and subrecipients are required to include a provision in their contracts explaining
 2681 the prohibitions under section 889(b)(1) of John S. McCain National Defense Authorization Act for
 2682 Fiscal Year 2019 and 2 CFR § 200.216. This applies to subcontractors under any new, extended or

¹⁵⁰ According to section 889(b)(1) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019. On May 10, 2022, FEMA issued policy #405-143-1, Prohibitions on Expending FEMA Award Funds for Covered Telecommunications Equipment or Services. For the most updated policy and additional information, visit FEMA’s Procurement webpage at <https://www.fema.gov/grants/procurement>.

¹⁵¹ Public Law 115-232 (August 13, 2018)

2683 renewed contract. Recipients and subrecipients may draft their own provisions that meet these
2684 requirements or use language provided on FEMA’s [“Contracting with Federal Funds for Goods and
2685 Services Before, During and After Disasters” webpage](#).

2686 **K.3.4. REQUIRED CONTRACT CLAUSES**

2687 Applicants and subapplicants must include the required contract provisions in [2 CFR § 200.327](#) in
2688 all contracts awarded. Some provisions are based on sound contracting practices while others are
2689 required by federal law, executive orders and regulations. Required contract provisions include:

- 2690 ▪ Remedies Clause.
- 2691 ▪ Termination for Cause.
- 2692 ▪ Termination for Convenience.
- 2693 ▪ Equal Employment Opportunity.
- 2694 ▪ Contract Work Hours and Safety Standards Act.
- 2695 ▪ Clean Air Act.
- 2696 ▪ Federal Water Pollution Control Act (also known as the Clean Water Act).
- 2697 ▪ Debarment and Suspension.
- 2698 ▪ Byrd Anti-Lobbying Amendment Clause.
- 2699 ▪ Byrd Anti-Lobbying Amendment Certification.
- 2700 ▪ Procurement of Recovered Materials.
- 2701 ▪ Prohibitions on Certain Telecommunications and Video Surveillance Services or Equipment.
- 2702 ▪ Domestic Preferences.

2703 In addition, contracts must include the Department of Homeland Security Acquisition Regulation
2704 Class Deviation 15-01 clauses “Safeguarding of Sensitive Information” and “Information Technology
2705 Security and Privacy Training” for existing and new contracts and solicitations that have a high risk of
2706 unauthorized access to or disclosure of sensitive information.

2707 FEMA also recommends the following contract provisions be included in all contract awards:

- 2708 ▪ Changes clause.
- 2709 ▪ Access to records.

- 2710 ▪ Department of Homeland Security seal, logo and flags.
- 2711 ▪ Compliance with federal law, regulations and executive orders clause.
- 2712 ▪ No obligation by federal government.
- 2713 ▪ Program fraud and false or fraudulent statements or related act.

2714 More information about required and recommended contract provisions, including sample language,
 2715 can be found on FEMA’s [“Contracting with Federal Funds for Goods and Services Before, During and
 2716 After Disasters” webpage](#).

2717 **K.3.5. DOCUMENTATION REQUIREMENTS**

2718 The recipient or subrecipient should submit the following to support contract costs claimed (not an
 2719 all-inclusive list):

- 2720 ▪ Procurement policy (required when requested by FEMA or recipient or subrecipient).
- 2721 ▪ Procurement documents, such as request for proposals, bids, selection process, etc.
 2722 (required when requested by FEMA or recipient or subrecipient).¹⁵²
- 2723 ▪ Federal awarding agency or recipient or subrecipient review.
- 2724 ▪ A cost or price analysis (required for contracts above the simplified acquisition threshold).
- 2725 ▪ Contracts, change orders and summary of invoices (required).
- 2726 ▪ Dates worked (to validate that work was completed within the award’s period of
 2727 performance).
- 2728 ▪ Documentation that substantiates monitoring, such as weekly logs.

2729 **K.3.6. CONFLICTS OF INTEREST**

2730 The non-federal entity must maintain written standards of conduct covering conflicts of interest and
 2731 governing the performance of its employees engaged in the selection, award and administration of
 2732 contracts.¹⁵³ No employee, officer or agent may participate in the selection, award, or administration
 2733 of a contract supported by a federal award if that person has a real or apparent conflict of interest.

2734 If the non-federal entity has a parent, affiliate or subsidiary organization (that is not a state, local
 2735 government or federally recognized tribe), then the non-federal entity must also maintain written
 2736 standards of conduct covering organizational conflicts of interest. Organizational conflicts of interest

¹⁵² [2 CFR §§ 200.317-325\(b\)](#)

¹⁵³ [2 CFR § 200.318\(c\)\(1\)](#)

2737 occur when the non-federal entity is or appears to be unable to be impartial in conducting a
 2738 procurement action involving a related organization because of relationships with a parent company,
 2739 affiliate or subsidiary organization.

2740 To ensure objective contractor performance and eliminate an unfair competitive advantage,
 2741 contractors that develop or draft design plans and specifications, requirements, statements of work
 2742 and invitations for bids or requests for proposals must be excluded from competing for such
 2743 procurements as required.¹⁵⁴

2744 **K.4. Reimbursement for Costs Incurred by Homeowners Contracting to**
 2745 **Perform Mitigation Scope of Work**

2746 Generally, states and non-federal entities are subject to the procurement requirements addressed in
 2747 [2 CFR part 200](#). However, in providing financial assistance under the HMA programs, FEMA has the
 2748 discretion to approve a subrecipient’s request to use federal assistance to reimburse individual
 2749 property owners who contract for the performance of eligible mitigation work on their own homes
 2750 and therefore not strictly apply the federal procurement provisions.

2751 FEMA has this discretion because there is no prohibition in the relevant federal law governing HMA
 2752 programs that would prevent subrecipients from choosing to allow property owners to secure
 2753 contractors to implement the project and then reimburse the property owner with federal assistance.
 2754 However, if FEMA regional offices permit this practice as a matter of discretion, the recipient and
 2755 subrecipient still retain their legal obligations for oversight of the assistance under applicable
 2756 program regulations, applicable program guidance and applicable regulations of [2 CFR part 200](#).
 2757 These require the recipient and subrecipient to properly monitor, report on and account for the use
 2758 of assistance with documentation showing costs are reasonable, necessary, allowable and allocable,
 2759 and at closeout, all approved projects were completed consistent with award and subaward terms,
 2760 program requirements and applicable law.¹⁵⁵

2761 **K.5. Uniform Relocation Assistance and Real Property Acquisition Policies**
 2762 **Act**

2763 HMA projects involving acquisition, rehabilitation or demolition may be subject to the requirements
 2764 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA).¹⁵⁶
 2765 Property owners participating in FEMA-funded property acquisition and structure demolition or
 2766 relocation projects are not entitled to relocation benefits because the voluntary program meets URA
 2767 exceptions.¹⁵⁷ However, any displaced person as defined by [42 U.S.C. § 4601\(6\)](#) (such as a
 2768 displaced tenant), who is temporarily or permanently displaced from their home or business as a

¹⁵⁴ [2 CFR § 200.319\(b\)](#)

¹⁵⁵ [44 CFR §206.433\(a\)](#), [44 CFR § 206.434\(c\)\(5\)](#), [44 CFR § 206.438\(a\)](#), [44 CFR § 206.438\(c\)](#), [44 CFR § 206.438\(d\)](#), [44 CFR §206.439](#), [2 CFR § 200.328](#) through [2 CFR § 200.330](#), [2 CFR § 200.344](#), [2 CFR § 200.403](#), [2 CFR §200.405](#).

¹⁵⁶ Public Law 91-646 (January 2, 1971), [42 U.S.C. Chapter 61](#)

¹⁵⁷ [2 CFR §§ 24.2\(a\)\(9\)\(ii\)\(E\) or \(H\)](#) and [2 CFR § 24.101\(b\)\(2\)](#)

2769 direct result of a HMA-funded project, is entitled to compensation in accordance with [49 CFR part](#)
 2770 [24](#). Costs incurred to meet URA requirements are eligible and should be included in the
 2771 subapplication budget. The URA requirements detailed under the acquisition project type in [Part 12](#)
 2772 provide additional information. These requirements apply to all project types where acquisition,
 2773 rehabilitation or demolition is involved.

2774 **K.6. Duplication of Programs**

2775 FEMA will not provide assistance for activities for which it determines the more specific authority lies
 2776 with another federal agency or program. Other programs and authorities should be examined before
 2777 applying for HMA. HMA programs are not intended to be used as a substitute for other available
 2778 program authorities. Available program authorities include other FEMA programs (e.g., Individual
 2779 Assistance, PA) and programs under other federal agencies, such as the EPA, the U.S. Army Corps of
 2780 Engineers (USACE), and the Natural Resources Conservation Service. FEMA may disallow or recoup
 2781 amounts that duplicate other authorities.¹⁵⁸ For PA Mitigation and HMGP, see section K.7
 2782 Duplication of Benefits and Reporting Requirements below.

2783 **K.6.1. FEDERALLY AUTHORIZED WATER RESOURCES DEVELOPMENT PROJECTS**

2784 Section 1210(b) of the Disaster Recovery Reform Act creates an exception for HMGP to the
 2785 prohibition under HMA that FEMA will not provide financial assistance for activities FEMA has
 2786 determined another federal agency has more specific authority to conduct.¹⁵⁹ Specifically, section
 2787 1210(b) of the Disaster Recovery Reform Act provides that FEMA may use HMGP assistance to fund
 2788 the construction of federally authorized water resources development projects that would normally
 2789 fall under the primary authority of USACE, as long as those activities are also eligible under HMGP.
 2790 For more information, see [Part 12](#), [B.5.4.3.1. USACE Projects and HMGP](#).

2791 **K.7. Duplication of Benefits and Reporting Requirements**

2792 HMA cannot duplicate assistance received by or available to applicants or subapplicants from other
 2793 sources for the same purpose.¹⁶⁰ If the recipient or subrecipient receives assistance from another
 2794 source for the same work that FEMA assisted, FEMA reduces the eligible cost or deobligates
 2795 assistance to prevent a duplication of benefits.

2796 Recipients, subrecipients and individual property owners are responsible for accurately reporting the
 2797 availability or receipt of duplicative grants, loans, insurance payments, legal claims, gifts or other
 2798 payments pertaining to the property being mitigated using HMA. Reporting should occur at any point
 2799 that such information becomes available, including:

¹⁵⁸ [44 CFR § 206.434\(f\)](#)

¹⁵⁹ Public Law 115-254 (October 5, 2018)

¹⁶⁰ Section 312 of the [Stafford Act](#), [42 U.S.C. § 5155](#)

2800 ▪ During application development, pre-award and approval.

2801 ▪ During the award period of performance.

2802 ▪ During closeout.

2803 ▪ After award closeout, if duplicative assistance is received later.

2804 Examples of other sources include insurance claims, other assistance programs (including previous
2805 project or planning awards and subawards from other FEMA programs), legal awards or other
2806 benefits associated with properties or damage that are subject to litigation.

Duplication of Benefits

Duplication of benefits is used to describe assistance that is from more than one source and that is used for the same purpose or activity. The purpose may apply to the entire activity or only part of it.

Duplication of benefits may apply when assistance for the same purpose:

- Has been received.
- Will be received.
- Is reasonably available from another source, such as insurance or legal settlements due to the property owners.

2816
2817 Because the availability of other sources of mitigation award or loan assistance is subject to
2818 available information and the means of each individual applicant, HMA does not require that
2819 property owners seek assistance from other sources (except for insurance). However, it is the
2820 responsibility of the property owner to report other benefits received, any applications for other
2821 assistance, the availability of insurance proceeds, or the potential for other compensation, such as
2822 compensation from pending legal claims for damage relating to the property. If the property owner
2823 has an insurance policy that could potentially cover mitigation activities (including Increased Cost of
2824 Compliance coverage), FEMA will generally require that the property owner file a claim prior to the
2825 receipt of aid from HMA.

2826 According to the Privacy Act of 1974,¹⁶¹ information regarding other assistance received by
2827 properties in HMA activities may be shared under [5 U.S.C. § 552a\(b\)](#). Uses may include sharing with
2828 custodians of property records, such as other federal or other governmental agencies, insurance
2829 companies, or any public or private entity, to ensure the property has not received money that is
2830 duplicative of any possible HMA awards received. When obtaining information from property owners
2831 about other sources of assistance, a Privacy Act statement must be distributed to each owner. For

¹⁶¹ Public Law 93-579 (December 31, 1974), [5 U.S.C. § 552a](#)

2832 more information about the process of verifying potential duplication, access the [Hazard Mitigation](#)
 2833 [Assistance Tool for Identifying Duplication of Benefits](#). For a copy of the Privacy Act statement, see
 2834 Appendix F of that document.



Eligibility and Requirements Resources

- 2836 ▪ Hazard Mitigation Planning: <https://www.fema.gov/emergency-managers/risk->
 2837 [management/hazard-mitigation-planning](https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning)
- 2838 ▪ FEMA P-361: *Safe Rooms for Tornadoes and Hurricanes: Guidance for Community and*
 2839 *Residential Safe Rooms* [https://www.fema.gov/sites/default/files/documents/fema_safe-](https://www.fema.gov/sites/default/files/documents/fema_safe-rooms-for-tornadoes-and-hurricanes_p-361.pdf)
 2840 [rooms-for-tornadoes-and-hurricanes_p-361.pdf](https://www.fema.gov/sites/default/files/documents/fema_safe-rooms-for-tornadoes-and-hurricanes_p-361.pdf)
- 2841 ▪ *Hazard Mitigation Assistance Cost Share Guide*:
 2842 https://www.fema.gov/sites/default/files/2020-08/fema_hma_cost-share-guide.pdf
- 2843 ▪ FEMA P-1080: *Answers to Frequently Asked Questions About Increased Cost of*
 2844 *Compliance* [https://www.fema.gov/sites/default/files/2020-](https://www.fema.gov/sites/default/files/2020-11/fema_p1080_icc_faq_20170817.pdf)
 2845 [11/fema_p1080_icc_faq_20170817.pdf](https://www.fema.gov/sites/default/files/2020-11/fema_p1080_icc_faq_20170817.pdf)
- 2846 ▪ Increased Cost of Compliance Coverage: [https://www.fema.gov/floodplain-](https://www.fema.gov/floodplain-management/financial-help/increased-cost-compliance)
 2847 [management/financial-help/increased-cost-compliance](https://www.fema.gov/floodplain-management/financial-help/increased-cost-compliance)
- 2848 ▪ System for Award Management: <http://www.sam.gov/SAM/>
- 2849 ▪ Contracting with Federal Funds for Goods and Services Before, During and After Disasters:
 2850 <https://www.fema.gov/grants/procurement>

EHP Resources

- 2852 ▪ Environmental & Historic Preservation Grant Preparation Resources:
 2853 [https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
 2854 [resources](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
- 2855 ▪ FEMA Directive 108-1: *Environmental Planning and Historic Preservation Responsibilities*
 2856 *and Program Requirements* [https://www.fema.gov/sites/default/files/2020-](https://www.fema.gov/sites/default/files/2020-07/fema_ehp_requirements_2018.pdf)
 2857 [07/fema_ehp_requirements_2018.pdf](https://www.fema.gov/sites/default/files/2020-07/fema_ehp_requirements_2018.pdf)
- 2858 ▪ National Environmental Policy Act: [https://www.fema.gov/emergency-](https://www.fema.gov/emergency-managers/practitioners/environmental-historic/laws/nepa)
 2859 [managers/practitioners/environmental-historic/laws/nepa](https://www.fema.gov/emergency-managers/practitioners/environmental-historic/laws/nepa)
- 2860 ▪ National Historic Preservation Act: [https://www.fema.gov/emergency-](https://www.fema.gov/emergency-managers/practitioners/environmental-historic/laws/nhpa)
 2861 [managers/practitioners/environmental-historic/laws/nhpa](https://www.fema.gov/emergency-managers/practitioners/environmental-historic/laws/nhpa)
- 2862 ▪ Endangered Species Act: <https://www.fws.gov/law/endangered-species-act>
- 2863 ▪ Executive Order 11988: *Floodplain Management* [https://www.archives.gov/federal-](https://www.archives.gov/federal-register/codification/executive-order/11988.html)
 2864 [register/codification/executive-order/11988.html](https://www.archives.gov/federal-register/codification/executive-order/11988.html)

- 2865
- 2866
- Executive Order 11990: *Protection of Wetlands* <https://www.archives.gov/federal-register/codification/executive-order/11990.html>
 - Executive Order 12898: *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>
- 2867
- 2868
- 2869
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- For a comprehensive list of EHP resources, see the FEMA EHP webpage:
<https://www.fema.gov/emergency-managers/practitioners/environmental-historic/laws>.

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Part 5. Cost-Effectiveness

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In accordance with authorizing statutes, only cost-effective mitigation measures are eligible for potential funding from the Federal Emergency Management Agency (FEMA).¹⁶² FEMA has specified minimum project criteria via regulation, including that applicants must demonstrate mitigation projects are cost-effective.¹⁶³

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FEMA developed several methodologies that applicants and subapplicants may use to demonstrate cost-effectiveness in accordance with Office of Management and Budget (OMB) [Circular A-94: Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs](#). FEMA generally assesses the cost-effectiveness of hazard mitigation projects through a Benefit-Cost Analysis (BCA)—a quantitative analysis used to assess the cost-effectiveness of a hazard mitigation measure by comparing the project’s avoided future damages to the costs over the project lifetime. The result is a Benefit-Cost Ratio (BCR), which is the numerical expression of the cost-effectiveness of a project calculated as the net present value of total project benefits divided by the net present value of total project costs.¹⁶⁴ A project is generally considered to be cost-effective when the BCR is 1.0 or greater, indicating the benefits of a prospective hazard mitigation project are sufficient to justify the costs.

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FEMA created the [BCA Toolkit](#) to help applicants perform benefit cost analyses in accordance with OMB’s guidelines. Through the development of the BCA Toolkit, FEMA created a standardized methodology that is specific to mitigation activities and provides consistency across applicants and subapplicants.

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In addition to the BCA Toolkit, FEMA provides several streamlined methodologies that applicants and subapplicants may use to demonstrate cost-effectiveness. While FEMA encourages the use of the BCA Toolkit, applicants and subapplicants may also use a non-FEMA BCA methodology if pre-approved by FEMA in writing.

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For Building Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance (FMA), additional information on demonstrating cost-effectiveness may be found in the appropriate year’s Notice of Funding Opportunity (NOFO).

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¹⁶² For Hazard Mitigation Grant Program (HMGP) see [42 United States Code \(U.S.C.\) § 5170c](#); for Building Resilient Infrastructure and Communities (BRIC) see [42 U.S.C. § 5133](#); for Flood Mitigation Assistance (FMA) see [42 U.S.C. § 4104c](#)

¹⁶³ For HMGP see [44 Code of Federal Regulations \(CFR\) § 206.434](#); for FMA see [44 CFR part 77](#)

¹⁶⁴ OMB Circular A-94 defines net present value as the difference between the discounted present value of benefits and the discounted present value of costs.

2898 **A. Exemptions**

2899 Certain activities are exempt from the requirement to demonstrate cost-effectiveness.¹⁶⁵ Exempt
2900 activities include:

- 2901 ▪ Management costs.
- 2902 ▪ Mitigation planning-related activities.
- 2903 ▪ Any activities claimed under the 5 Percent Initiative (See [Part 10](#)).
- 2904 ▪ Codes and standards formally adopted by the authority having jurisdiction of the project
2905 location, and if applicable to the project.
- 2906 ▪ Advance assistance under the Hazard Mitigation Grant Program (HMGP) and Hazard
2907 Mitigation Grant Program Post Fire (HMGP Post Fire).
- 2908 ▪ Project scoping under BRIC and FMA.
- 2909 ▪ Technical assistance awards.
- 2910 ▪ Earthquake early warning systems.

2911 More information about specific activities can be found in [Part 11](#), [Part 12](#) and [Part 13](#). Activities
2912 may be subject to funding limitations to maintain the cost-effectiveness of the Hazard Mitigation
2913 Assistance (HMA) programs as a whole.

2914 **B. Calculating the Benefit-Cost Ratio**

2915 Unless stated otherwise in the HMA Guide or another authoritative source, all subapplications must
2916 demonstrate a BCR of 1.0 or greater. Depending on the project type, applicants must use one or
2917 more of the following methodologies to document cost-effectiveness.

2918 **B.1. Streamlined Benefit-Cost Analysis Methodologies**

2919 FEMA offers several streamlined methodologies as alternatives to completing the full BCA using the
2920 BCA Toolkit.

¹⁶⁵ While OMB Circular A-94 describes an exemption for water resources projects over \$10 million (see the White House Council on Environmental Quality [Principles, Requirements and Guidelines for Water and Land Related Resources Implementation Studies](#) [PR&G] [December 2014]), the cost-effectiveness requirement in the Hazard Mitigation Assistance (HMA) program authorizing statutes must be met. The cost-effectiveness determination should be supplemented by consideration of the PR&G criteria if applicable. Water resources projects may include aquifer recovery and storage, flood diversion and storage, and floodplain and stream restoration .

2921 **B.1.1. SUBSTANTIAL DAMAGE WAIVER**

2922 The acquisition of structures that are declared substantially damaged (from any hazard) and located
2923 in a riverine Special Flood Hazard Area (SFHA) on a preliminary or effective Flood Insurance Rate
2924 Map is considered cost-effective. Substantial damage is defined as damage sustained by a building
2925 whereby the cost of restoring the building to its before-damaged condition would equal or exceed 50
2926 percent of the market value of the building before the damage occurred.¹⁶⁶ If this methodology is
2927 used, the project subapplication must include a certification from the local floodplain administrator
2928 or a certified state/tribal floodplain specialist that identifies and declares each structure
2929 substantially damaged.

2930 **B.1.2. PRE-CALCULATED BENEFITS FOR MITIGATION PROJECTS**

2931 FEMA calculated several benefit-cost efficiencies to provide pre-determined cost-effectiveness
2932 values. Using these pre-calculated benefits eliminates the requirement for applicants to conduct a
2933 separate BCA for eligible projects.

2934 FEMA developed pre-calculated benefits for the following project types:¹⁶⁷

- 2935 ▪ Acquisitions and elevations in the SFHA.
- 2936 ▪ Acquisitions of repetitive loss and severe repetitive loss structures outside of the SFHA.
- 2937 ▪ Residential hurricane wind retrofits.
- 2938 ▪ Nonresidential hurricane wind retrofits.
- 2939 ▪ Residential tornado safe rooms.
- 2940 ▪ Mitigation reconstruction.
- 2941 ▪ Post-wildfire mitigation (soil stabilization, flood diversion and reforestation).
- 2942 ▪ Generators for hospitals.

2943 The precalculated benefits and benchmark costs are not intended to drive actual project costs or to
2944 serve as a detailed project budget. Individual project budgets must be based on industry standards,
2945 vendor estimates or other acceptable sources. Projects must still meet all other applicable award
2946 and subaward requirements.

2947 Pre-calculated benefits cannot be combined with benefits from a traditional BCR calculated using
2948 FEMA's BCA Toolkit for purposes of aggregation of benefits. The application of excess benefits from

¹⁶⁶ [44 CFR § 59.1](#)

¹⁶⁷ For updated information on pre-calculated benefits, including pre-calculated benefits for additional project types, refer to FEMA's webpage on the Benefit-Cost Analysis at <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>.

2949 the pre-calculated structures cannot be applied to the structure(s) analyzed using the BCA Toolkit or
2950 other FEMA-approved methodology. If pre-calculated benefits for a project are not greater than the
2951 project costs, the BCA Toolkit can be used to perform BCA.

2952 Detailed information on using pre-calculated benefits can be found by project type in [Part 12](#).
2953 Additionally, new pre-calculated benefits and updated values for existing benefits can be found on
2954 FEMA's "[Benefit-Cost Analysis](#)" webpage.

2955 **C. Calculation of the Benefit-Cost Ratio Using the** 2956 **Benefit-Cost Analysis Toolkit**

2957 FEMA developed the BCA Toolkit to facilitate the process of preparing a BCA. Using the BCA Toolkit
2958 will ensure the calculations are prepared in accordance with OMB Circular A-94 and FEMA's
2959 standardized methodologies.

2960 The BCA Toolkit consists of modules for a range of major natural hazards and project types. Given
2961 the right data, the BCA Toolkit can analyze nearly any hazard mitigation project type.

2962 The most recent version of the BCA Toolkit, including detailed instructions on how to download and
2963 use the tool, may be found on FEMA's "[Benefit-Cost Analysis](#)" webpage.

2964 Other methods to demonstrate cost-effectiveness may be used when they address a noncorrectable
2965 flaw in the FEMA-approved methodologies or propose a new approach that is unavailable using
2966 current tools. New methodologies may be used only if FEMA approves the methodology before
2967 application submission. The request should provide justification of why the subapplicant cannot use
2968 the standard BCA tools and provide documentation to support the claim.

2969 **C.1. Key Elements of the Benefit-Cost Ratio**

2970 According to OMB Circular A-94, the BCR is expressed as the net present value of the benefits of the
2971 project divided by the costs. OMB Circular A-94 states that BCAs should count benefits and costs to
2972 society—meaning that the BCA should capture all benefits and costs of the project, not just benefits
2973 or costs accruing to particular entities.

2974 To calculate the BCR, the BCA Toolkit uses hazard and risk data as well as information about the
2975 mitigation project such as project effectiveness. The four key elements of the BCR calculation are:

- 2976 1. The benefits of the project.
- 2977 2. The costs of the project.
- 2978 3. The hazard risk (the likelihood and consequences of the hazard causing damages).
- 2979 4. The economic factors of the analysis (i.e., discount rate and project useful life).

2980 These four key elements are described in the following sections.

2981 **C.1.1. PROJECT BENEFITS**

2982 The benefits of a hazard mitigation project are any future costs or losses that can be avoided by
 2983 completing a mitigation project. In other words:

2984
$$\textit{Benefits} = \textit{Costs Before Mitigation} - \textit{Costs After Mitigation}$$

2985 The following “costs before mitigation” should be counted regardless of who pays for them, whether
 2986 that be the federal government; state, local, tribal and territorial governments; or the property owner,
 2987 and can include the following:

- 2988 ▪ Physical damages.
- 2989 ▪ Loss of service/function.
- 2990 ▪ Injury or death.
- 2991 ▪ Displacement costs.
- 2992 ▪ Emergency management costs.
- 2993 ▪ Maintenance costs.
- 2994 ▪ National Flood Insurance Program (NFIP) administration costs.

2995 The “costs after mitigation” includes costs after the mitigation project has taken place. For example,
 2996 if a home is elevated, it will not be damaged until the floodwaters reach the first floor. Costs after
 2997 mitigation are also known as residual damages. All project types have residual damages except for
 2998 acquisitions, which demolish a structure and then leave the property as open space in perpetuity.
 2999 The costs after mitigation reflect the level of protection that the mitigation measure provides (i.e., a
 3000 house elevated to the 1-percent annual chance flood level or hurricane shutters that provide
 3001 protection up to 120 miles per hour winds).

3002 BCAs should capture all project benefits to the extent feasible, even after the project has already
 3003 achieved a BCR greater than 1.0. Capturing all possible benefits provides a more comprehensive
 3004 account of a project’s benefits and helps ensure the project remains cost-effective if a cost increase
 3005 occurs.

3006 **C.1.1.1. Physical Damages**

3007 Avoided physical damages are one of the primary categories of benefits in FEMA BCAs. Buildings,
 3008 contents, infrastructure, landscaping, vehicles, agricultural assets and equipment can be damaged
 3009 by hazard events. These damages have a dollar value (i.e., the cost to repair or replace the damaged
 3010 property). The benefits of a mitigation project are the reduction in future damages attributable to a
 3011 mitigation project.

3012 **C.1.1.2. Loss of Service/Function**

3013 Another major benefit of a hazard mitigation project can be avoided loss of service or function of the
3014 facility. This benefit is only applicable to facilities that provide a service to the public, such as
3015 utilities, emergency operations facilities (i.e., police, fire), government facilities, infrastructure such
3016 as roads and bridges, and educational facilities.

3017 For critical facilities such as police and fire stations and hospitals, the value of services is estimated
3018 based on the service population, impacts to service (e.g., increased distance to the nearest fire
3019 station, reduced number of hospital beds) and the societal benefits of maintaining that facility in the
3020 aftermath of a disaster. For critical and other public facilities such as emergency operations centers,
3021 schools or government buildings, the annual operating budget is used as a proxy to estimate the
3022 value of services.

3023 **C.1.1.3. Injury or Death**

3024 For some types of hazard mitigation projects, a major benefit can be avoided human injury and/or
3025 loss of life. This benefit is only applicable to the following project types:

- 3026 ▪ Tornado safe rooms.
- 3027 ▪ Hurricane safe rooms.
- 3028 ▪ Seismic retrofits.
- 3029 ▪ Wildfire mitigation.
- 3030 ▪ Dam retrofits.
- 3031 ▪ Landslide acquisitions.

3032 These project types address hazards that have little to no warning time or protect populations that
3033 cannot evacuate, such as emergency personnel.

3034 **C.1.1.4. Displacement Costs**

3035 Avoided displacement costs may be counted as a benefit. Displacement costs occur when occupants
3036 of residential, commercial or public buildings are displaced to temporary quarters while damage is
3037 repaired. These costs include rent and other monthly costs, such as furniture rental and utilities, and
3038 one-time costs, such as moving and utility hookup fees.

3039 **C.1.1.5. Emergency Management Costs**

3040 Some projects may have the benefit of avoided emergency management costs. Emergency
3041 management costs include a range of disaster response and recovery costs that communities may
3042 incur during and immediately after a disaster. In many disasters, these costs are much smaller than
3043 physical damages or loss of service impacts.

3044 **C.1.1.6. Maintenance Costs**

3045 Some hazard mitigation projects may reduce long-term maintenance costs for the owner or operating
 3046 entity. These benefits may be included in the BCA. For example, if power lines are buried, the utility
 3047 company may no longer need to trim the trees surrounding the power lines. However, in some cases,
 3048 the maintenance costs for the mitigation measure could increase and should be reflected in the
 3049 maintenance cost section of the BCA.

3050 **C.1.1.7. National Flood Insurance Program Administration Costs**

3051 Properties insured under the NFIP incur administrative fees to run the program. If a property is
 3052 acquired and demolished, there is no longer an administrative cost to the government for that
 3053 property; it is therefore an avoided cost and may be counted as a benefit in the BCA. Avoided NFIP
 3054 administration costs do not have to be calculated; these are standard values that are incorporated
 3055 into the BCA Toolkit.

3056 **C.1.1.8. Volunteer Labor**

3057 Any hazard mitigation project that eliminates or reduces the need for volunteer labor can claim this
 3058 benefit.

3059 It must be clearly demonstrated in the application that the proposed project will reduce or eliminate
 3060 the future need for the volunteer effort that is being claimed.

3061 **C.1.1.9. Social Benefits**

3062 Extensive epidemiological research shows there is a causal connection between natural disaster
 3063 events and the onset of mental health issues, which can be valued as the cost of mental health
 3064 treatment and lost productivity at work. Social benefits capture the avoided costs associated with
 3065 mental stress, anxiety and lost wages that disaster survivors would otherwise experience when
 3066 displaced from their primary residence.

3067 Only projects that protect residential structures and are intended to keep residents from being
 3068 displaced from their primary residence may include social benefits in the BCA. Social benefits do not
 3069 apply to projects such as seismic retrofits or residential tornado safe rooms, where the primary
 3070 benefits are life-safety protection.

3071 Where applicable, a project’s BCA may include the precalculated values for social benefits in [Table 5](#).
 3072 These values are one-time benefits, meaning they do not occur on an annual basis. Any updates to
 3073 these values will be accounted for in the [BCA Toolkit](#).

3074 **Table 5: BCA Social Benefits Values**

Social Benefit	Value
Mental stress and anxiety	\$2,443/person

Social Benefit	Value
Lost productivity	\$8,736/person

3075 **C.1.1.10. Ecosystem Service Benefits**

3076 Ecosystem service benefits are the contributions the project provides to an ecosystem that benefits
 3077 the environment and human populations such as air quality, water filtration and recreational space.
 3078 These benefits accrue when a parcel’s land use is changed or enhanced by a mitigation activity to
 3079 one that provides a higher level of natural benefits. For example, the change from urban land use to
 3080 green space as a result of mitigating a structure within an acquisition/demolition project will mean
 3081 improved ecosystem services benefits for infiltration, habitat, nutrient cycling, climate regulation and
 3082 other natural environmental and floodplain functions.

3083 Values for these depend on the post-mitigation land use type and may be found in [Table 6](#). These
 3084 benefits apply to any project type that results in an improved or restored natural environment.
 3085 Eligible project types include but are not limited to acquisitions; relocations; post-wildfire
 3086 revegetation; and floodplain, stream, or coastal restoration. Certain types of projects, such as
 3087 vegetation management or bank stabilization, may be eligible for ecosystem services benefits
 3088 depending on the project. These benefits occur on an annual basis over the project useful life.
 3089 Ecosystem service benefits may only be used when performing a BCA to demonstrate cost-
 3090 effectiveness; they cannot be combined with precalculated benefits.

3091 Wildfire mitigation projects may qualify for ecosystem services benefits if they protect an existing
 3092 natural area. Applying ecosystem services benefits to wildfire mitigation projects should be evaluated
 3093 on a case-by-case basis, as the design of these projects can vary widely. In general, defensible space
 3094 and ignition-resistant construction projects are not likely to qualify for ecosystem services benefits. A
 3095 wildfire mitigation project may not include ecosystem services benefits if:

- 3096 ▪ It does not protect at least one contiguous acre of natural space, such as a forest or
 3097 grassland.
- 3098 ▪ It involves the application of chemicals or other nonnatural substances.

3099 **Table 6: Ecosystem Services Benefits Values**

Land Use Type	Value (Per Acre Per Year)
Green Open Space	\$8,308
Riparian	\$39,545
Wetlands	\$6,010
Forest	\$554
Marine and Estuary	\$1,799

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3101 The land use types are defined as follows:

3102 ▪ **Green open space:** Land that is partly or completely covered with grass, trees, shrubs or
3103 other vegetation (and does not fall under any of the other definitions below).

3104 ▪ **Riparian:** Land situated on the banks of a river, stream, lake, pond or wetland.

3105 ▪ **Wetlands:** An area that is inundated or saturated by surface or groundwater at a frequency
3106 and duration sufficient to support, and that under normal circumstances do support, a
3107 prevalence of vegetation typically adapted for life in saturated soil conditions.¹⁶⁸

3108 ▪ **Forest:** A large area covered chiefly with trees and undergrowth.

3109 ▪ **Marine and estuary:** Open waters or partially enclosed coastal water bodies where freshwater
3110 from rivers and streams mixes with saltwater from the ocean.

3111 Any updates to values for ecosystem services benefits can be found in the BCA Toolkit and FEMA's
3112 ["Benefit-Cost Analysis"](#) webpage.

3113 **C.1.1.11. Unallowable Benefits**

3114 In general, the following benefits may not be counted in FEMA BCAs:

3115 ▪ Anything that is subjective or nonquantifiable (e.g., ease of implementation or aesthetic
3116 value of project).

3117 ▪ Anything not impacted by the proposed project.

3118 A definitive connection must be made between the project and claimed benefits. This is especially
3119 important when using historical damages in the BCA; the project must reduce or eliminate these
3120 damages in order to include them.

3121 In addition, OMB Circular A-94 guidelines also do not allow the inclusion of the following benefits:

3122 ▪ Employment or output multipliers intended to measure the secondary effects of government
3123 expenditures on employment and economic output.

3124 ▪ Anything that is considered a transfer payment may not be counted as an avoided cost. A
3125 transfer payment is the reallocation of money by means of an entity (such as the government
3126 or a homeowner) making a payment without goods or services being received in return. For
3127 example:

¹⁶⁸ Section 404 of the Clean Water Act

- 3128 ○ Insurance premiums.
- 3129 ○ Government subsidies.
- 3130 ○ Fines or penalties, such as U.S. Environmental Protection Agency fines.

3131 **C.1.2. PROJECT COSTS**

3132 The project cost is the denominator in the BCR equation. Any annual maintenance costs associated
3133 with the project are discounted by seven percent over the project useful life and added to the total
3134 project cost.¹⁶⁹

3135 The costs captured in the BCA should reflect the total project cost required to complete the
3136 mitigation activity, not just the federal share. Similarly, some subapplicants may not request HMA up
3137 to the available federal cost share. In these cases, the BCA must still use the sum of all required (not
3138 just requested) costs necessary to achieve the hazard mitigation purpose of the immediate life-
3139 safety protection. Management costs, as defined in this guide, may be excluded from the project cost
3140 for the purpose of the BCA.

3141 Costs should be consistent with the project budget. See [Part 6, B.3. Application Documentation and](#)
3142 [Assurance Forms](#). Costs of a mitigation project include (but are not necessarily limited to):

- 3143 ▪ Construction costs.
- 3144 ▪ Any other project-related costs such as title searches, appraisals, permits, etc.
- 3145 ▪ Maintenance costs specifically related to the project that are necessary to sustain the
3146 mitigation function.
- 3147 ▪ Any in-kind contributions or match from the recipient or subrecipient.

3148 **C.1.3. RISK**

3149 Hazard risk is a key factor in the benefit calculation. The U.S. Department of Homeland Security
3150 (DHS) defines risk as “the potential for an unwanted outcome resulting from an incident, event, or
3151 occurrence as determined by its likelihood and the associated consequences.”¹⁷⁰

3152 The BCA Toolkit factors in risk by calculating the likelihood of a hazard event occurring and the
3153 projected impacts of that event. The BCA Toolkit measures the likelihood of an event using
3154 recurrence intervals and calculates different impacts based on the size and severity of the hazard.

¹⁶⁹ OMB Circular A-94

¹⁷⁰ [DHS Risk Lexicon](#) (September 2008)

3155 The BCA Toolkit weights higher-frequency events more than those that occur less frequently. The
3156 probabilities of future events profoundly affect whether a proposed mitigation project is cost-
3157 effective.

3158 Recurrence intervals are also location specific. The BCA Toolkit requires location information to
3159 assess risk. For example, the Midwest has a higher probability of tornadoes than the Northeast or
3160 the Pacific Northwest because that area experiences more tornadoes on an annual basis.

3161 Additionally, risk is not always uniform across hazards within a single event. A hurricane might have
3162 windspeeds with a 200-year recurrence interval, but the storm surge might have only a 25-year
3163 recurrence interval in the same location.

3164 Calculating risk also considers the potential consequences (or impacts) of a hazard event, which can
3165 vary based on facility type. For example, the estimated flood damages for a one-story building will
3166 typically be a larger proportion of the total building value than that of a multistory building or a
3167 building with a closed versus open foundation. Likewise, estimated deaths and injuries from a
3168 tornado are greater for individuals in mobile homes than in concrete structures. Hazard risk data can
3169 be found in the applicant’s or subapplicant’s hazard mitigation plan, including data on previous
3170 occurrences, probability (reoccurrence intervals) and potential consequences (impacts).

3171 **C.1.4. ECONOMIC FACTORS**

3172 **C.1.4.1. Discount Rate**

3173 Future benefits must be reduced because benefits that are experienced sooner are worth more. The
3174 rate at which future benefits are reduced is called the discount rate.

3175 FEMA must use a seven percent discount rate in its BCAs for hazard mitigation projects.¹⁷¹ The
3176 discount rate is built into the calculations in the BCA Toolkit and cannot be changed.

3177 **C.1.4.2. Project Useful Life**

3178 The project useful life is the estimated amount of time the project is expected to remain effective,
3179 assuming proper maintenance. In the BCA, the project useful life is the period during which the
3180 benefits are accumulated and then discounted to net present value. For example, a project with a
3181 30-year life is assumed, on average, to produce a stream of benefits each year for 30 years. Each
3182 year’s benefit is discounted to net present value and the sum of these annual benefits is the total
3183 benefits of the project.

3184 More information may be found on the FEMA’s [“Benefit-Cost Analysis”](#) webpage.

¹⁷¹ [OMB Circular A-94](#)

3185 **C.1.5. ANNUALIZED BENEFITS AND COSTS**

3186 Because of the unpredictable nature of hazard events, the BCA Toolkit estimates the benefits of a
3187 hazard mitigation project on an annual basis rather than in specific years. The BCA Toolkit uses
3188 hazard frequency, damage data and project effectiveness to estimate annualized benefits.

3189 *Annual Benefits = Annual Damages Before Mitigation – Annual Damages After Mitigation*

3190 **C.1.6. DOCUMENTATION REQUIREMENTS**

3191 Guidance on appropriate documentation for the data elements in the BCA Toolkit can be found on
3192 FEMA’s [“Benefit-Cost Analysis”](#) webpage. If FEMA standard values are used when completing the
3193 BCA Toolkit inputs, no additional documentation is required. If nonstandard values are used
3194 documentation is required. Documentation must be accurate and sufficiently detailed for the
3195 analysis to be validated. FEMA recommends that supporting documentation be obtained from
3196 credible sources, such as a Flood Insurance Study or a signed and stamped engineering study.

3197 **C.1.7. SUBAPPLICATION SUBMISSION REQUIREMENTS**

3198 When using the BCA Toolkit to demonstrate cost-effectiveness, FEMA requires the submission of:

- 3199 ▪ The exported BCA file or Excel template file for the project.
- 3200 ▪ The BCA report pdf file for the project.
- 3201 ▪ All supporting documentation for the values entered in the BCA Toolkit.

3202 For HMGP and HMGP Post Fire, the BCA documentation is required prior to FEMA approval. For BRIC
3203 and FMA, the BCA documentation is required at the time of subapplication submission.

3204 If BCA file submission requirements change due to a version or platform update, the information will
3205 be reflected on FEMA’s [“Benefit-Cost Analysis”](#) webpage.

3206 **D. Other Considerations**

3207 **D.1. Aggregation of Benefits**

3208 Aggregation of benefits is when the benefits and costs of two or more individual structures or project
3209 components (referred to as mitigation actions in the BCA Toolkit) are strategically combined to create
3210 an average or composite BCR for a mitigation project overall. This approach allows individual
3211 structures or project components that are not cost-effective on a stand-alone basis to borrow excess
3212 benefits from cost-effective project elements or structures. Aggregation of benefits aims for optimal
3213 risk reduction while retaining project cost-effectiveness with an average BCR greater than or equal to
3214 1.0.

3215 An evaluation of the cost-effectiveness of a project should include all mitigation activities contained
3216 in the project application’s scope of work. This may include various activities in multiple jurisdictions.
3217 It may also include combining benefits derived from mitigation activities associated with multiple
3218 hazards, such as wind and flood, if part of the same project. Aggregation of benefits must occur
3219 within the same HMA program and within a single subapplication (i.e., a subapplication is typically
3220 composed of multiple properties or sites and/or project types).

3221 It is appropriate to aggregate benefits when the projects and groups within them are related in some
3222 aspect, and the project’s BCR will be greater than or equal to 1.0 because of aggregating benefits.
3223 Based on these criteria, many HMA projects could gain an advantage through the aggregation of
3224 benefits, although some project types, such as the aggregation of benefits in property acquisition
3225 and structure demolition projects, present more obvious opportunities than others. As long as the
3226 overall BCR of an aggregated project is greater than or equal to 1.0, the project is deemed cost-
3227 effective and meets the regulatory requirements under the Robert T. Stafford Disaster Relief and
3228 Emergency Assistance Act.¹⁷²

3229 The purpose of the aggregation of benefits is to increase the number of cost-effective mitigation
3230 projects to maximize risk reduction in hazard-vulnerable communities. HMA encourages the
3231 consideration of aggregating benefits in all project applications, as aggregation allows applicants and
3232 subapplicants to mitigate a greater number of structures or a larger area of the community than if
3233 each structure or project component were analyzed separately. In other words, aggregation of
3234 benefits expands opportunities for cost-effective mitigation by efficiently distributing all existing
3235 project benefits and not leaving potential benefits on the table.

3236 Aggregation of benefits can be implemented across jurisdictional boundaries such as county lines,
3237 state lines and watershed boundaries. Aggregation of benefits can also take place across different
3238 project types, such as aggregation of benefits for a project combining structure elevation and wind
3239 retrofit, or flood and seismic retrofits. While aggregation of benefits across multiple hazards is less
3240 common, this form of aggregation is allowable as long as the BCA is deemed cost-effective.
3241 Applicants and subapplicants must maintain complete documentation for each structure included in
3242 the aggregation.

3243 While undertaking aggregation of benefits is highly encouraged, there is a potential for increased
3244 administrative oversight and project management as projects increase in complexity and geographic
3245 extent. This complexity may be further increased when working across jurisdictional boundaries or
3246 project types.

3247 Applicants and subapplicants may use project scoping/advance assistance, management costs or
3248 technical assistance funding to help address administrative and project management challenges.

¹⁷² Public Law 100-707 (November 23, 1988); amending the Disaster Relief Act of 1974, Public Law 93-288 (May 22, 1974)

3249 The [FEMA BCA Helpline](#) can also provide support and guidance with questions regarding the
 3250 aggregation of benefits.

3251 **D.1.1. AGGREGATION OF PRE-CALCULATED BENEFITS – MULTIPLE PROPERTIES WITHIN**
 3252 **A SUBAPPLICATION**

3253 Subapplications may include multiple properties that use different approaches to demonstrating
 3254 cost-effectiveness. Using a hybrid approach, the subapplicant may choose a subset of properties to
 3255 which to apply pre-calculated benefits. The average cost of these properties must be below the
 3256 designated pre-calculated benefit amount. The subapplicant would then analyze the remaining
 3257 properties using the BCA Toolkit (or other FEMA-approved methodology), and the project costs and
 3258 benefits for this subset would be aggregated to develop a composite BCR, which must be greater
 3259 than or equal to 1.0. The application of excess benefits from the pre-calculated structures cannot be
 3260 applied to the structure(s) being analyzed with the BCA Toolkit or any other FEMA-approved method.

3261 **D.2. Phased Projects**

3262 Phased projects are allowed under the HMGP, HMGP Post Fire and BRIC programs, and require a
 3263 BCA for Phase I and Phase II. The purpose of phased projects is to provide assistance for design,
 3264 engineering, environmental and historic preservation (EHP), or feasibility studies or analysis on a
 3265 proposed project during Phase I. For this reason, BCAs for the HMGP or BRIC Phase I subapplications
 3266 should be based on the best available data and include a detailed explanation of any assumptions
 3267 that went into the BCA, including any assumptions about after-mitigation (residual) damages. Phase I
 3268 approval does not guarantee approval of future phases. After Phase I is completed, FEMA will
 3269 complete an eligibility review that includes a cost-effectiveness determination to evaluate if the
 3270 project meets all eligibility requirements to proceed to Phase II. BCAs should incorporate data from
 3271 the Phase I study/analysis and should reflect current site conditions and all revisions to scope and
 3272 cost made to the project following Phase I analysis.



3273 **Cost-Effectiveness Resources**

- 3274 ▪ OMB Circular A-94: *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal*
 3275 *Programs*: [https://www.whitehouse.gov/wp-](https://www.whitehouse.gov/wp-content/uploads/legacy_drupal_files/omb/circulars/A94/a094.pdf)
 3276 [content/uploads/legacy_drupal_files/omb/circulars/A94/a094.pdf](https://www.whitehouse.gov/wp-content/uploads/legacy_drupal_files/omb/circulars/A94/a094.pdf)
- 3277 ▪ FEMA BCA Toolkit: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>
- 3278 ▪ FEMA BCA webpage: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>

3279

Part 6. Application and Submission Information

3280

3281 This part provides information to HMA recipients and subrecipients about application requirements
3282 and the process for submitting application. The following information is intended for guidance only
3283 and is not a request for information.

A. General Application and Subapplication Principles

3284

3285 For a subapplication to be eligible for Hazard Mitigation Assistance (HMA), the subapplicant and the
3286 applicant must provide the appropriate documentation, in the correct format, to establish eligibility.
3287 Eligibility is discussed in detail in [Part 4](#) and subapplication considerations and project scoping are
3288 discussed in [Part 3](#).

3289 Subapplication packages are available from eligible applicants. The applicant selects and prioritizes
3290 subapplications and submits them to FEMA. HMA applications are processed through an electronic
3291 application system. The system generally encompasses the entire application process and provides
3292 the means to electronically create, review and submit an assistance application in a digital format.
3293 The applicant is required to use the electronic application system.

3294 For the Hazard Mitigation Grant Program (HMGP) and Hazard Mitigation Grant Program Post Fire
3295 (HMGP Post Fire), the applicant may submit a single application representing all subapplications, or
3296 they may submit multiple applications. When multiple subapplications are submitted, they should be
3297 ranked in priority order. Application instructions for Building Resilient Infrastructure and
3298 Communities (BRIC) and Flood Mitigation Assistance (FMA) may be found in the appropriate year's
3299 Notice of Funding Opportunity (NOFO).

3300 Applications and subapplications submitted to FEMA must meet all program eligibility criteria
3301 outlined in the law, regulations and the HMA Guide. FEMA does not accept incomplete or placeholder
3302 applications or subapplications. Incomplete applications or subapplications delay award or subaward
3303 approval if they do not contain sufficient information for FEMA to make a program eligibility
3304 determination.

3305 If the subapplication is deficient, the applicant may revise or augment the subapplication in
3306 consultation with the subapplicant. Applicants must certify that they have evaluated the activities
3307 included in each subapplication and that activities will be implemented in accordance with
3308 applicable activity-type and program requirements.

3309 Before forwarding subapplications to FEMA, applicants must review subapplications to document
3310 that:

- 3311 ▪ All program-specific and activity-specific requirements have been met and are documented,
3312 as appropriate.
- 3313 ▪ The subapplicant has documented its ability to manage the subaward assistance.
- 3314 ▪ The subapplicant has documented its ability to complete the mitigation activity in the time
3315 specified.
- 3316 ▪ Non-federal cost share assistance is available and will remain available for the total duration
3317 of the subaward’s period of performance.
- 3318 ▪ The maintenance requirements have been sufficiently identified, and the subapplicant or
3319 another authorized entity has accepted the maintenance responsibility.
- 3320 ▪ The underlying cost-effectiveness data are accurate and complete.
- 3321 ▪ The application includes necessary Office of Management and Budget (OMB)-approved
3322 forms, where required.

3323 FEMA will only consider applications and subapplications submitted to a specific HMA program. If an
3324 applicant would like to have a subapplication considered under multiple HMA programs, the
3325 applicant must submit that subapplication to each HMA program separately. If selected, applications
3326 will only be funded under one program.

3327 For more information, applicants should contact the appropriate FEMA regional office. For
3328 information on FEMA contacts, see [Part 15](#).

3329 B. Application Package and Submission

3330 B.1. Grants.gov Registration

3331 Before applying for HMA, applicants and subapplicants must complete preliminary steps required to
3332 receive any federal funding. Applicants and subapplicants must complete a grants.gov registration
3333 (including registering with the System for Award Management) by visiting the [grants.gov registration](#)
3334 [website](#). Applicants and subapplicants with existing registrations should verify their information is
3335 current and correct. Registration should remain current through the application period and period of
3336 performance.

3337 B.2. Electronic Grants Management Systems

3338 FEMA’s Grants Management Modernization Initiative is modernizing and consolidating FEMA’s grants
3339 management systems by moving away from using multiple systems (e.g., National Emergency
3340 Management Information System [commonly known as NEMIS] and eGrants). The previous grants
3341 systems’ functionalities and business processes will continue to be updated and developed in the

3342 new system, FEMA Grants Outcomes (FEMA GO), and the legacy systems will be decommissioned
 3343 once FEMA GO is at full operating status across all of FEMA’s grant programs.

3344 FEMA GO allows users to apply, track and manage all disaster and nondisaster grants by performing
 3345 all business functions that fall within all five phases of the grants management lifecycle: pre-award,
 3346 award, post-award, closeout, and post-closeout. It also improves oversight and monitoring. For more
 3347 information, see the [“FEMA Grants Outcomes \(FEMA GO\)” webpage](#). To resolve any technical issues,
 3348 contact the FEMA GO Help Desk at 1-877-585-3242 or femago@fema.dhs.gov.

3349 **B.3. Application Documentation and Assurance Forms**

3350 For FEMA to approve a subapplication, the subapplicant and the applicant must submit the
 3351 necessary documentation. If an application lacks the eligibility information required, FEMA cannot
 3352 determine eligibility and approve the application. If information is lacking, FEMA may request
 3353 additional information during the review process.

3354 The following documentation, which is needed to demonstrate eligibility, should be contained in the
 3355 subapplication and application. Criteria may vary depending on the proposed activity, but
 3356 applications/subapplications generally include all the elements below:

- 3357 ▪ An eligible applicant and subapplicant.
- 3358 ▪ Identification of mitigation activity.
- 3359 ▪ Consistency with FEMA-approved mitigation plans.¹⁷³
- 3360 ▪ A scoping narrative that describes the proposed activities and their outcomes and contains
 3361 the following:
 - 3362 ○ Detailed scope of work that describes the steps to complete the mitigation activity.
 - 3363 ○ Work schedule demonstrating that the activity will be completed within the period of
 3364 performance for the applicable program (see [Part 7](#)).
 - 3365 ○ Budget that supports the scope of work, including the schedule, and reflects the total
 3366 activity cost.
 - 3367 ○ Cost share information that clearly identifies the source of the non-federal cost share and
 3368 establishes that the non-federal cost share meets program eligibility requirements.
 - 3369 ○ Cost-effectiveness information (see exceptions in [Part 5](#)).

¹⁷³ [44 Code of Federal Regulations \(CFR\) § 206.434\(c\)\(1\)](#)

- 3370 ○ Feasibility and effectiveness information (mitigation project types only).
- 3371 ○ Environmental and historic preservation (EHP) compliance documentation as required by
- 3372 EHP guidance (See [fema.gov](https://www.fema.gov)'s [Environmental and Historic Preservation Grant](#)
- 3373 [Preparation Resources Page](#) for the [EHP Compliance Checklist](#)).
- 3374 ■ Assurances for nonconstruction and construction programs (may vary for construction or
- 3375 nonconstruction activities).
- 3376 ■ SF-LLL, "Disclosure of Lobbying Activities."
- 3377 ■ Additional documentation, as required by FEMA.

3378 Recipients are required to use FEMA's electronic application systems as indicated by the guidance or
 3379 program NOFO. For HMGP, alternative methods may be used if they are approved by FEMA in the
 3380 recipient's HMGP Administrative Plan.

3381 The above information, collections and forms have been incorporated into FEMA's electronic
 3382 application systems. FEMA reviews forms as often as required by OMB or more frequently if program
 3383 statutes or regulations require updates. FEMA will publish updated forms on FEMA.gov and in
 3384 electronic application systems.

3385 **B.4. Other Required Content**

3386 Supporting documentation that cannot be electronically attached to the application (e.g., engineering
 3387 drawings, photographs, maps) must be submitted to the appropriate FEMA regional office. The entire
 3388 application and all supporting documentation must be received by the appropriate FEMA regional
 3389 office no later than the application deadline.

3390 If a subapplicant does not use the electronic application system, the applicant must enter the paper
 3391 subapplication(s) into the system on the subapplicant's behalf prior to the application deadline.

3392 **B.5. Intergovernmental Review**

3393 [Executive Order 12372](#), *Intergovernmental Review of Federal Programs* (July 14, 1982), fosters
 3394 intergovernmental partnership and strengthens federalism by relying on state and local processes
 3395 for the coordination and review of proposed federal financial assistance and direct federal
 3396 development. The executive order allows each state to designate an entity to perform this function. If
 3397 required by state or local law, the applicant must follow the procedures outlined in the state or local
 3398 intergovernmental review.

3399 Applicants may need to allow additional time for the intergovernmental review process. If an
 3400 applicant has chosen not to participate in the intergovernmental review process, the application may
 3401 be sent directly to FEMA.

3402 Applicants should contact the state single point of contact to determine whether the application is
3403 subject to the state intergovernmental review process. After confirming the program’s
3404 intergovernmental review eligibility, the applicant must indicate if the application is subject to review
3405 on SF-424, “Application for Federal Assistance.”

3406 For more information about intergovernmental review, see [44 Code of Federal Regulations \(CFR\)](#)
3407 [Part 4](#).

3408 **B.6. Application Submission**

3409 Submission dates and times generally vary by program. More details are outlined in the sections
3410 below.

3411 **B.6.1. HAZARD MITIGATION GRANT PROGRAM APPLICATION SUBMISSION**

3412 HMGP submission deadlines for applications are established by FEMA based on the major disaster
3413 declaration date. The recipient should submit all subapplications within 12 months of the date of the
3414 major disaster declaration.¹⁷⁴ Subapplications should include all costs for the proposed mitigation
3415 activity including subrecipient management costs.

3416 The recipient may submit a written request to extend the application period if the application period
3417 has not yet expired. The recipient must include a justification in its request. The regional
3418 administrator may extend the application submission timeline in 30- to 90-day increments (not to
3419 exceed a total extension of 180 calendar days) if extraordinary conditions occur.¹⁷⁵

3420 FEMA encourages recipients to submit subapplications in excess of available assistance, as
3421 subapplications must be submitted within the application period to be considered for assistance.

3422 The excess subapplications can be considered after the application period has closed (and the
3423 period of performance is open) when:

- 3424 ▪ FEMA increases the HMGP ceiling.
- 3425 ▪ Other subapplications are found ineligible or are withdrawn.
- 3426 ▪ There are cost underruns after the closeout of approved subapplications.

3427 Subapplications submitted in excess of available assistance should also include associated
3428 management costs, as management costs requests must also be submitted within the application
3429 period.

¹⁷⁴ [44 CFR § 206.436\(d\)](#)

¹⁷⁵ [44 CFR § 206.436\(e\)](#)

3430 FEMA may extend the application period beyond 180 calendar days based on meeting the criteria of
3431 section 301 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act ([Stafford Act](#)).¹⁷⁶
3432 Section 301 of the Stafford Act provides relief for the rare and extraordinary circumstance when the
3433 magnitude of the event for which the extension is requested prevents the recipient from meeting
3434 program administrative requirements. These requests will be considered on a case-by-case basis.

3435 The FEMA region submits the request and its recommendation to the Federal Insurance and
3436 Mitigation Administration associate administrator for final action. If the application deadline occurs
3437 while FEMA is reviewing a request, this will not preclude FEMA from granting the extension. For more
3438 information on HMGP, see [Part 10](#).

3439 **B.6.2. HAZARD MITIGATION GRANT PROGRAM POST FIRE APPLICATION SUBMISSION**

3440 States, federally recognized tribes and territories that are affected by fires and receive a Fire
3441 Management Assistance Grant (FMAG) declaration are eligible to apply for HMGP Post Fire. The
3442 application period opens with the state or territory’s first FMAG declaration of the fiscal year and
3443 closes six months after the end of that fiscal year. The regional administrator may grant up to two
3444 90-day extensions. Additional extensions must be requested from the region and approved by the
3445 deputy associate administrator for mitigation. FEMA will send a formal assistance notification letter
3446 to eligible applicants with the first and each subsequent FMAG declaration.

3447 **B.6.3. BUILDING RESILIENT INFRASTRUCTURE AND COMMUNITIES PROGRAM AND** 3448 **FLOOD MITIGATION ASSISTANCE APPLICATION SUBMISSION**

3449 Application submission due dates and times are noted in the NOFO posted on grants.gov.
3450 Subapplicants should consult the official designated point of contact for more information regarding
3451 the application process and deadlines.

3452 **C. Scoping Narrative: Scope of Work, Schedule and** 3453 **Budget**

3454 Each subapplication must include a scoping narrative, which is a description of the proposed
3455 activities and anticipated outcomes, as a means for FEMA to determine whether the activities are
3456 eligible, whether the applicant can complete the activities within the period of performance and
3457 whether the proposed costs are reasonable.

3458 The scoping narrative stipulates the deliverables, identifies the tasks required to complete the
3459 proposed activity, and defines the tasks to be accomplished in clear, concise and meaningful terms.
3460 It typically consists of the scope of work, schedule and budget. All activities must be identified in the

¹⁷⁶ Public Law 100-707 (November 23, 1988); amending the Disaster Relief Act of 1974, Public Law 93-288 (May 22, 1974); [42 United States Code \(U.S.C.\) § 5141](#)

3461 scoping narrative prior to the close of the application period. The scoping narrative becomes part of
3462 the conditions of the award.

3463 **C.1. Scope of Work**

3464 The following components may be included in the scope of work. Required information may vary
3465 between construction and nonconstruction activities.

3466 **C.1.1. INTRODUCTORY STATEMENT**

3467 The scope of work starts with a short statement that describes the proposed activity and what will be
3468 accomplished by the end of the period of performance.

3469 **C.1.2. ACTIVITIES DESCRIPTION**

3470 The scope of work describes the proposed approach, outcomes and level of effort, including key
3471 milestones and schedule, and each activity’s relationship to the budget. The description explains
3472 how the outcome will be reached and identifies the responsible party for each task.

3473 Other considerations that should be addressed in the activities description:

- 3474 ▪ **Geographic area(s) description and location:** Provide geographic information about the
3475 mitigation activity being scoped. The description of the geographic area(s) may vary based on
3476 the mitigation activity proposed and may be site specific (i.e., address and latitude/longitude
3477 to the nearest sixth decimal place) or include a description of the general area served by the
3478 proposed activity. Enter geospatial coordinates into the location section of the
3479 subapplication.
- 3480 ▪ **Hazard source(s):** The hazard source(s) refers to the hazard type(s) that will be mitigated by
3481 the mitigation activity being scoped. Identify the hazard type(s) that will be mitigated by the
3482 mitigation activity being scoped.
- 3483 ▪ **Population affected:** Identify the percentage of the population that will be affected by the
3484 proposed project. The number of people who will benefit from the proposed activity should
3485 be known for the scope of work. Divide this number by the total population to determine the
3486 percentage.
- 3487 ▪ **Need for the proposed project:** Describe past event(s) and damage history or risk
3488 assessment, if applicable. Explain how the proposed project will mitigate such damage or
3489 risk.
- 3490 ▪ **Describe how the mitigation activity will be completed:** Explain the process that the
3491 subapplicant will follow to complete the mitigation activity. Describe the proposed activities
3492 and define tasks to be accomplished. The scope of work should include key milestones.
3493 Explain who will complete the work. Include information about the procurement process that

3494 the subapplicant will follow, if applicable. Explain the proposed outcomes or deliverables.
 3495 Proposed conceptual designs must be provided either through an identified industry
 3496 standard or through project plans and specifications.

3497 For nonconstruction activities, describe existing operations and what gaps the mitigation
 3498 activity is expected to address. For construction projects, describe the project site and
 3499 conditions. If retrofit projects are proposed, describe how the project will tie into existing
 3500 structures or facilities.

3501 ■ **Technical feasibility and effectiveness (for construction subapplications):** Technical feasibility
 3502 refers to the extent that the completed project will mitigate damages and losses as claimed
 3503 in the subapplication. Demonstrating technical feasibility often requires providing technical
 3504 documentation, which requires consultation with design professionals such as professional
 3505 engineers and licensed architects. Technical documentation may be attached to the
 3506 subapplication.

3507 ○ Engineering design documentation demonstrates how the proposed project will reduce
 3508 risk after it is completed. Documentation may include preliminary schematic or
 3509 engineering drawings, a clear explanation of design parameters that will be followed, and
 3510 the level of protection. Any engineering practices or best practices proposed in the design
 3511 should be explained.

3512 ○ For certain hazard types, FEMA developed design standards that must be followed for a
 3513 project to be considered eligible.

3514 ○ Technical feasibility should explain any required building codes or construction codes
 3515 and standards.

3516 ■ **Describe who will manage the mitigation activity:** Explain how the mitigation activity will be
 3517 managed and who is responsible for completing the project. Explain whether existing or hired
 3518 staff will be used.

3519 ■ **Project alternatives:** For construction projects, multiple mitigation project alternatives are
 3520 required as part of the subapplication. Indicate at least three alternative actions:

3521 ○ No action alternative and its consequences.

3522 ○ Alternative that was selected and why.

3523 ○ Alternative(s) that was considered but not selected and why.

3524 The selected action alternative should pertain to the project proposed in the subapplication.
 3525 Explain why it is the most practical, effective and environmentally sound alternative.

- 3526 ▪ **Long-term maintenance:** Long-term maintenance helps to ensure that a mitigation project
3527 will remain effective at reducing risk beyond its initial construction and into the future.
3528 Certain types of projects will require an operations and maintenance plan. Name the entity
3529 that will perform the long-term maintenance and provide a schedule and cost information.
3530 Information on maintenance costs is likely to be contained in documentation used in the
3531 Benefit-Cost Analysis.

- 3532 ▪ **Alignment with hazard mitigation plan:** Explain how the mitigation activity is consistent with
3533 the FEMA-approved local or tribal mitigation plan.

- 3534 ▪ **Management costs to support grants management activities:** Describe whether the
3535 subapplicant will manage the subaward with internal staff or intends to hire a
3536 contractor/consultant to manage the effort. This item refers to the oversight of the subaward
3537 and not to the oversight of the project construction. For more information see [Part 13](#).

- 3538 ▪ **Deviations from standard procedures:** Deviations from standard procedures, methods,
3539 techniques, and technical provisions of the applicable codes or best practices must be
3540 thoroughly explained and documented to determine eligibility and feasibility.

- 3541 ▪ **Mitigation activity components:** Activity-specific guidance is provided in [Part 11](#), [Part 12](#) and
3542 [Part 13](#). Applicants should review the guidance to determine what elements should be
3543 addressed in the scope of work narrative.

- 3544 ▪ **Past assistance description:** The description should summarize past assistance provided to
3545 develop subapplication and activity work plans and specifications (such as project
3546 scoping/advance assistance).

3547 **C.1.3. PERSONNEL**

3548 The scope of work narrative identifies proposed staff and personnel requirements, describes
3549 relevant experience in managing proposed activities of federal awards, and identifies planned use of
3550 contractors and consultants.

3551 **C.1.4. TASK MANAGEMENT**

3552 The scope of work narrative describes the methods the subapplicant will use to manage the tasks
3553 and contractors as well as to monitor and report on progress, including proposed accountability
3554 measures.

3555 **C.1.5. RANKING FACTORS**

3556 The scope of work explains how the activities will address the goals and objectives or ranking factors
3557 of the relevant HMA program. For BRIC and FMA, FEMA will identify assistance priorities in the NOFO
3558 announcement. For HMGP and HMGP Post Fire, the recipient may identify assistance priorities.

3559 **C.2. Schedule**

3560 The schedule includes all tasks identified in the scope of work and the relationship of each activity
3561 for the budget. The schedule identifies major milestones with target dates for meeting each
3562 milestone, including anticipated quarterly usage of federal assistance. Proposed schedules must not
3563 exceed the period of performance for the award. The applicant and subapplicant must provide
3564 sufficient detail so that FEMA can determine whether the proposed activities can be accomplished
3565 within the period of performance.

3566 The schedule should specify the duration of each process component required to complete the
3567 project. Although the components' occurrences are not necessarily sequential and activities may be
3568 carried out concurrently, the total timeline cannot exceed the period of performance.

3569 **C.3. Budget**

3570 The budget should match the proposed level of effort from the scope of work and work schedule.

3571 All cost elements must match tasks and provide sufficient detail for FEMA to determine whether the
3572 application is eligible. The budget should include consideration regarding cost share, pre-award
3573 costs, closeout, format and contingency costs. Note that ineligible formats, such as lump sum
3574 estimates, are not eligible and will not be accepted.

3575 Budgets should include various cost item categories, such as personnel (labor) and fringe benefits,
3576 travel, equipment, supplies (materials), contractual, construction, other, pre-award costs,
3577 contingencies, program income and management costs. The budget should be supported with a
3578 budget narrative and documentation to support the basis of the estimate and substantiate that the
3579 budget is reasonable. Costs should be in accordance with applicable cost principles.¹⁷⁷

3580 The budget is essential for understanding if the requested costs are allowable (allocable, necessary
3581 and reasonable).

3582 **C.3.1. BUDGET DOCUMENTATION**

3583 The budget documentation should indicate the method(s) used to determine the mitigation activity
3584 costs (e.g., the estimate was prepared by a consultant, previous assistance was used to inform the
3585 estimate).

3586 Costs should be associated to each applicable cost category(s). All costs should be detailed and not
3587 contain lump sums. The budget should include a line-item breakdown of costs consistent with all
3588 elements described in the scope of work and schedule information.

¹⁷⁷ [2 CFR part 200, subpart E.](#)

3589 Subapplicants should provide a budget narrative with explanations, justifications and line-item
 3590 details of the costs. The budget narrative should explain how costs were derived and include details
 3591 not in the line items.

3592 The budget generally includes:

- 3593 ▪ **Personnel (labor) and fringe:** The number of personnel, number of hours per quarter, average
 3594 pay rate and fringe benefit rates.
- 3595 ▪ **Travel:** A breakdown of travel costs, such as the type of transportation, lodging, mileage, per
 3596 diem rates and estimated description of travel needs. Describe the travel involved and its
 3597 purpose and explain how the proposed travel is necessary for the activity. If travel details are
 3598 unknown, explain the basis for proposed costs. Lump-sums will not be accepted.
- 3599 ▪ **Equipment:** A list of equipment and the intended use of the equipment.¹⁷⁸ Provide a lease
 3600 versus purchase analysis for each item with a value greater than the recipient’s or
 3601 subrecipient’s capitalization level or \$5,000, whichever is more restrictive.¹⁷⁹ Provide a copy
 3602 of each rental agreement and pricing.
- 3603 ▪ **Supplies/materials:** A unit cost estimate for each major component or element.¹⁸⁰
- 3604 ▪ **Contractual support:** The estimate should be supported by a method of selection (e.g.,
 3605 competitive, sole source with justification, sealed bids, small purchase or micro-purchase),
 3606 request for proposal/scope of work, period of performance, criteria for measuring
 3607 accountability, bid documents or contract. If bids have not been received, the
 3608 applicant/subapplicant may submit an independent cost estimate.
- 3609 ▪ **Construction:** The estimate should include administrative and legal expenses; land, structure,
 3610 right-of-way and appraisals; relocation expenses and payments; architectural and
 3611 engineering fees; inspection fees; site work; demolition and removal; and other construction
 3612 costs.
- 3613 ▪ **Other:** Information in narrative form on how costs were identified.
- 3614 ▪ **Pre-award:** All pre-award costs should be noted in separate line items—including the date the
 3615 cost was incurred and a narrative description of the task completed. For more information
 3616 regarding pre-awards, see [Part 3](#).
- 3617 ▪ **Contingencies:** An allowance in the total budget to cover situations that cannot be fully
 3618 defined when the budget is prepared but that will likely result in additional eligible costs. If
 3619 contingency costs are requested, include them as a line item in the budget section of a

¹⁷⁸ [2 CFR § 200.1](#)

¹⁷⁹ [2 CFR § 200.318\(d\)](#)

¹⁸⁰ [2 CFR § 200.1](#)

3620 subapplication. As with other line items in the budget, the subapplicant should justify the
 3621 contingency estimate based on the nature of the proposed activity. For more information
 3622 regarding contingencies, see [Part 8](#).

3623

- **Program income:** Anticipated program income should be identified in the budget.¹⁸¹

3624

- **Management costs:** Direct administrative and indirect costs are only eligible as management
 3625 costs.¹⁸² Subrecipients must identify management costs in the budget as a separate line
 3626 item, supported by a schedule by budget year and a narrative describing personnel and
 3627 fringe benefits, travel, equipment, supplies, contractual, indirect costs and other
 3628 management costs expenses.

3629

- **Strategic funds management:** For activities greater than or equal to \$1 million, strategic
 3630 funds management or incremental assistance applies. For details on strategic funds
 3631 management, see [Part 8](#). Both the activity and management costs are subject to strategic
 3632 funds management requirements. The applicant or subapplicant must develop their financial
 3633 plan along with the work schedule for the mitigation activity by budget (or fiscal) year and
 3634 include a roll-up of all budget years. The schedule and applicable budget year budget should
 3635 support incremental obligations as each activity milestone is reached. If the applicant or
 3636 subapplicant determines that strategic funds management is not feasible for the activity, a
 3637 narrative explaining the rationale shall be provided.

3638 In addition to the budget, the applicant must identify the cost categories and value for anticipated
 3639 cash and third-party in-kind contributions for meeting the non-federal cost share.

3640 FEMA accepts estimated costs when they are:

3641

- Prepared by a licensed professional engineer or other estimating professional, such as a
 3642 licensed architect or certified professional cost estimator, who certifies that the estimate was
 3643 prepared in accordance with industry standards.

3644

- Based on unit costs for each component of the scope of work and not a lump-sum amount.

3645

- Of sufficient detail for FEMA to validate that all components correspond with the scope of
 3646 work.

3647

- Based on the current phase of design or construction inclusive of any known costs.

3648

- Inclusive of actual costs for work completed at the time the cost estimate is developed.

3649

- Reasonable.

¹⁸¹ [2 CFR § 200.1](#)

¹⁸² [2 CFR § 200.414 \(for FMA only\)](#)

3650 When estimated cost data does not provide enough detail for FEMA to complete an analysis, the
3651 agency may issue a Request for Information (RFI) to the applicant for additional information or
3652 clarification.

3653 **C.3.2. NON-FEDERAL FUNDING SHARE**

3654 The budget should include a list of all sources and amounts used in the non-federal share, including
3655 all third-party in-kind contributions.¹⁸³ FEMA will not reimburse any in-kind contributions above the
3656 required non-federal share. If any portion of the non-federal share comes from nonapplicant sources
3657 (e.g., donated services, private donation), the applicant must attach letters of funding commitment
3658 for each nonapplicant source.¹⁸⁴

3659 **D. Cost-Effectiveness Documentation**

3660 For details on cost-effectiveness documentation (for mitigation project types only), see [Part 5](#).

3661 **E. Feasibility and Effectiveness Documentation**

3662 FEMA will use the information provided in the subapplication—including the scope of work, the
3663 budget and supporting documentation—to determine the feasibility and effectiveness of the
3664 proposed mitigation project (for mitigation project types only).

3665 FEMA accepts the engineering design for a project if a licensed professional engineer (or other
3666 professional licensed by the state to practice in the discipline being certified by the individual)
3667 certifies that the design meets the appropriate code or industry design and construction standards.
3668 FEMA will accept the certified engineering design in lieu of a comprehensive technical feasibility
3669 review. Specific design and construction standards are included by project type in [Part 12](#). If
3670 accepted codes/standards are used, no additional documentation is required. The application must
3671 include the codes or standards that will be used for the design and the version and date of the codes
3672 or standards used.

3673 If an alternative design is proposed, the application and subapplication should contain:

- 3674 ▪ Applicable building code/edition or engineering standard used.
- 3675 ▪ Level of protection provided by the proposed project and description of how the proposed
3676 activity will mitigate future losses.
- 3677 ▪ For the retrofit of existing buildings or infrastructure protection projects, an assessment of
3678 the vulnerabilities of the existing building.

¹⁸³ See [2 CFR § 200.1](#) for a definition of third-party in-kind contributions.

¹⁸⁴ [2 CFR § 200.306](#)

3679 ▪ Any remaining risk to the structure after project implementation.

3680 ▪ Proposed schematic drawings or designs (as applicable).

3681 Project subapplications lacking the appropriate documentation to support the determination of
3682 feasibility and effectiveness may be removed from consideration. Upon request, FEMA will provide
3683 technical assistance regarding engineering documentation.

3684 If future conditions such as climate change–related factors (e.g., sea level rise or increased
3685 precipitation) are included in the analysis, the studies or reports documenting the increased risk and
3686 how it was applied to the project design should be included and document how the project
3687 effectiveness was calculated.

3688 **F. Environmental and Historic Preservation**

3689 **Documentation**

3690 Applicants and subapplicants are required to provide information to support the FEMA EHP
3691 compliance review. FEMA, in consultation with appropriate federal and state resource agencies, will
3692 use the information provided in the application/subapplication, including the scope of work and
3693 project budget, as well as any supporting documentation, to ensure compliance with EHP
3694 requirements.

3695 FEMA reviews the completeness of the responses to the questions in the EHP review section of the
3696 project subapplication and any supporting documentation. HMA project subapplications must
3697 include the required information for each property identified in the subapplication and a detailed
3698 scope of work. Information needs include clearly labeled maps, photographs of buildings, ages of all
3699 buildings and structures, and copies of any coordination letters with other agencies. FEMA uses this
3700 information to complete and document the EHP review process. A lack of information may delay the
3701 identification of outstanding EHP compliance requirements and project implementation. Also, failing
3702 to provide the required information by the application deadline may prohibit FEMA from making an
3703 award or subaward.

3704 **F.1. EHP Checklist**

3705 The applicant and subapplicant should ensure the project scope of work considers all potential EHP
3706 compliance issues and costs. To assist in preparing the subapplication, the applicant/subapplicant
3707 must complete the EHP Checklist and provide information and documentation about potential
3708 impacts on the pertinent environmental and cultural resources in the project area. The documents
3709 on FEMA's "[Environmental & Historic Preservation Grant Preparation Resources](#)" webpage detail the
3710 information the agency needs to carry out an EHP review by project type. Any relevant information,
3711 surveys or studies related to EHP considerations identified and addressed in previous project
3712 planning activities should also be provided and may be used to satisfy the EHP compliance
3713 requirements at FEMA's discretion.

3714 Using the EHP Checklist, the applicant/subapplicant will identify applicable information that must be
 3715 provided to FEMA, such as a complete scope of work narrative, documentation, maps, studies or
 3716 correspondence related to:

- 3717 ▪ **Biological resources:** Any identified federally listed threatened and endangered species
 3718 and/or designated critical habitats potentially affected by the proposed project.

- 3719 ▪ **Water and biological resources:** Vegetation, including amount (area), type and extent to be
 3720 removed or affected.

- 3721 ▪ **Water resources:** Identification of all surface waters in the project area regardless of
 3722 drainage area, size or perceived hazard level. Information about surface waters should
 3723 include dimensions, the proximity of the project activity to the water and the expected and
 3724 possible impacts of the proposed project on surface waters, if any.

- 3725 ▪ **Coastal resources:** Indication of whether the proposed project is located in a state’s
 3726 designated coastal zone or within a Coastal Barrier Resource System Unit or Otherwise
 3727 Protected Area.

- 3728 ▪ **Pollution control and debris management:** Identification of any hazardous or toxic materials
 3729 that will affect the project, including studies, investigations or enforcement actions related to
 3730 the proposed project’s location.

- 3731 ▪ **Socioeconomic and/or environmental justice requirements:** A description of any
 3732 socioeconomic effects, including disproportionately high and adverse effects on low-income
 3733 or minority populations (i.e., communities with environmental justice concerns) in the
 3734 proposed project area.

- 3735 ▪ **Historic or cultural resources:** The property address; the original date of construction; and at
 3736 least two color photographs for any buildings, structures, objects, or man-made
 3737 site/landscape features 45 years or older in age. At least one of the two photographs of a
 3738 building should be the front or primary façade showing the building’s entire elevation.

3739

3740 The EHP Checklist outlined in [Table 7](#) outlines necessary items for EHP compliance. Additional items
 3741 may be required. Any items marked with a “yes” in the EHP Checklist should be further described in
 3742 the project subapplication. This checklist has been incorporated into the electronic application
 3743 system for BRIC and FMA. For the most current information, see FEMA’s [“Environmental & Historic
 3744 Preservation Grant Preparation Resources”](#) webpage.

3745 **Table 7: EHP Checklist**

Environmental Regulation or Statute		Yes	No
National Historic Preservation Act			
1.A	Would the proposed project affect, or is the proposed project in close proximity to, any buildings or structures 45 years or more in age?		
1.B	Will the proposed project involve disturbance of ground?		
Endangered Species Act			
2.A	Are federally listed or endangered species, or their critical habitat, present in or near the project area and, if so, which species are present?		
2.B	Will the proposed project remove or affect vegetation?		
2.C	Is the proposed project in, near (within 200 feet), or likely to affect any type of waterbody or body of water?		
Clean Water Act and Rivers and Harbors Act			
3.A	Will the proposed project involve dredging or the disposal of dredged material, excavation, the addition of fill material, or result in any modification to water bodies or wetlands designated as “waters of the United States” as identified by the U.S. Army Corps of Engineers or any water bodies or wetlands in the National Wetland Inventory?		
Executive Order 11988 (Protection of Floodplains) and Executive Order 11990 (Protection of Wetlands)			
4.A	Does a Flood Insurance Rate Map, Flood Hazard Boundary Map, hydrological study or some other source indicate that the project is located in or will affect a 1-percent annual chance floodplain, a 0.2-percent annual chance floodplain (if a critical action), an identified regulatory floodway or an area prone to flooding?		
4.B	Is the proposed project located in, or will it affect, a wetland as listed in the National Wetland Inventory?		
4.C	Will the proposed project alter a watercourse, water flow patterns, or a drainage way, regardless of its floodplain designation?		
4.D	Is the proposed project located in, or will it affect, a floodplain or wetland? If yes, the eight-step process summarized in HMA job aids must be completed.		
Coastal Zone Management Act and Coastal Barrier Resources Act			

Environmental Regulation or Statute		Yes	No
5.A	Is the proposed project located in the state’s designated coastal zone?		
5.B	Is the proposed project located in a Coastal Barrier Resources System Unit or Otherwise Protected Area?		
Farmland Protection Policy Act			
6.A	Will the proposed project convert more than five acres of “prime or unique” farmland outside city limits to a nonagricultural use?		
Resource Conservation Recovery Act and Comprehensive Environmental Response, Compensation, and Liability Act			
7.A	Is there reason to suspect there are contaminants from a current or past use on the property associated with the proposed project?		
7.B	Are there any studies, investigations or enforcement actions related to the property associated with the proposed project?		
7.C	Will any project construction or operation activities involve the use of hazardous or toxic materials?		
7.D	Are any of the current or past land uses of the property associated with the proposed project or are any of the adjacent properties associated with hazardous or toxic materials?		
Executive Order 12898 (Environmental Justice for Low Income and Minority Populations)			
8.A	Are there any low-income or minority populations in the project’s area of effect or adjacent to the project area?		
Other Environmental/Historic Preservation Laws (Including Applicable State Laws) or Issues			
9.A	Are other environmental/historic preservation requirements associated with this project?		
9.B	Are any controversial issues associated with this project?		
9.C	Have any public meetings been conducted, or public comment solicited, on the proposed project?		

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FEMA may identify additional EHP compliance review activities necessary to facilitate project approval, such as the completion of environmental assessments, environmental impact statements, Phase I environmental site assessments, biological assessments, archeological or standing structures surveys and documentation, wetlands delineations, and air quality conformity analyses or determinations. FEMA job aid: [Section 106 Process under the National Historic Preservation Act](#) describes specific decision points made by FEMA during the section 106 review process. FEMA job

3753 aid: [NEPA Flowchart for HMA Projects](#) describes how FEMA decides if an environmental assessment
3754 or an environmental impact statement is needed for compliance with the National Environmental
3755 Policy Act.¹⁸⁵

3756 Unanticipated costs and delays may occur if, during the formal EHP compliance review, FEMA
3757 identifies an award condition (e.g., acquiring permits, timing restrictions) or scope change necessary
3758 for the project to remain in compliance with EHP laws or determines that a project will adversely
3759 impact an environmental or cultural resource. FEMA resolves adverse impacts to environmental or
3760 cultural resources through consultation processes that may involve federal and state agencies,
3761 federally recognized tribes and/or external stakeholders. The exact outcome of the consultation, and
3762 therefore the costs and time to resolve the impacts, will not be known until after project selection
3763 and consultation have concluded. The HMA program has the discretion to determine, on a project-by-
3764 project basis, whether FEMA or the applicant and subapplicant will provide assistance for EHP
3765 mitigation measures to resolve adverse impacts.

3766 Applicants and subapplicants may incur costs for significant EHP compliance review activities and/or
3767 EHP mitigation measures. FEMA will consider the following factors to determine whether to
3768 reimburse costs:

- 3769 ▪ Nature of the analysis or study required (e.g., environmental impact statement) and the
3770 degree to which the activity is related to accomplishing the mitigation goals.
- 3771 ▪ Costs of EHP activities compared to project costs.
- 3772 ▪ Complexity of the proposed project.
- 3773 ▪ Nature and extent of potential adverse impacts to environmental, cultural and/or historic
3774 resources.

3775 Applicants should consider potential EHP costs during application development and submission and
3776 should seek to avoid activities that may negatively impact EHP resources.

3777 FEMA may remove projects from consideration for full approval and/or assistance when EHP
3778 compliance review activities are not progressing and the applicant/subapplicant has not dedicated
3779 resources and/or provided required and requested documentation in a timely manner.

3780 For more information, visit FEMA's "[Environmental Planning and Historic Preservation](#)" webpage,
3781 contact the appropriate FEMA regional office or the EHP Helpline (1-866-222-3580), or contact
3782 ehphelpline@fema.dhs.gov.

¹⁸⁵ Public Law 91-190 (January 1, 1970), [42 U.S.C. § 4321](#)

3783 **G. Requests for Information**

3784 If a subapplication does not meet the administrative or procedural information requirements, FEMA
 3785 may request additional information in the form of a formal RFI. The request will detail additional
 3786 information or documentation needed to satisfy outstanding administrative, procedural, program,
 3787 technical or EHP requirements. For BRIC and FMA, an RFI will not occur until after selection because
 3788 of the competitive nature of the programs. RFIs can take various forms, including email requests,
 3789 documented telephone calls or formal letters. Applicants are responsible for coordinating with the
 3790 subapplicant to get the required information. Failure to provide the requested information by the
 3791 final deadline identified in the request may result in denial if eligibility cannot be determined.
 3792 Technical assistance may be available if requested.

3793 **G.1. Request for Information Timelines**

3794 [Table 8](#) provides timelines for information requests and assistance offers. The subapplication review
 3795 process involves an eligibility review to determine whether the subapplication and subapplicant are
 3796 eligible. Then a completeness review is conducted to determine whether a complete subapplication
 3797 was submitted. If the subapplication is determined to be incomplete, FEMA will request further
 3798 information from the subapplicant. However, at any point during the eligibility or completeness
 3799 review, FEMA can formally deny the application if sufficient information is not provided to determine
 3800 eligibility.

3801 At each step of the RFI subapplication review process, FEMA will work with the applicant to
 3802 determine available options to develop a viable activity. Some options include technical assistance
 3803 from FEMA or implementing a phased activity. If the FEMA regional administrator does not receive
 3804 the requested information before the deadline, the activity may be denied, as the agency will have no
 3805 basis to make an eligibility determination. Upon receipt of the requested information and
 3806 confirmation that it adequately addresses the RFI, FEMA will determine activity eligibility.

3807 **Table 8: Request for Information Timelines**

Request Format	Timeline
Informal – First Request	The FEMA project officer requests additional information from the applicant in writing. Unless the HMA program is competitive, FEMA may provide technical assistance, if requested, to help the applicant respond to the RFI and set a new time frame for the applicant’s response. Depending on the HMA program, the applicant may consider phasing the project if it is feasible to do so. If the requested information is not received within 30 calendar days from the date of the request, FEMA will consider the application to be incomplete and not approvable and will proceed with the process below to send an informal second request.

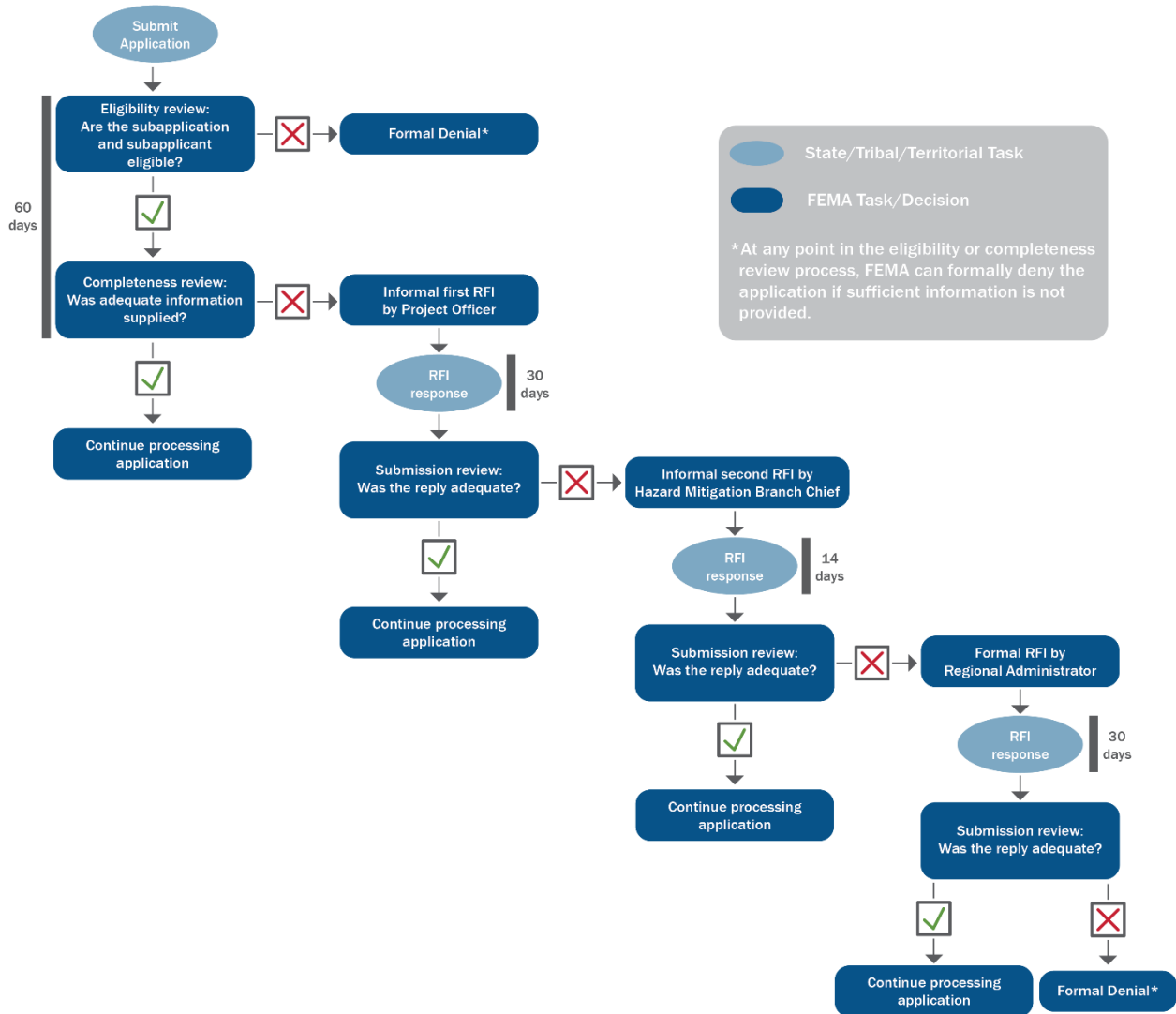
Request Format	Timeline
Informal – Second Request	The FEMA hazard mitigation branch chief requests additional information in writing. If the requested information is not received within 14 calendar days from the date of the request, FEMA will consider the application to be incomplete and not approvable. FEMA may provide technical assistance, if requested, unless the HMA program is competitive. FEMA, recipient and applicant staff should meet to resolve any open items within the allotted time frame, if necessary.
Formal Request	In a formal letter to the applicant, the FEMA regional administrator requests additional information and documents previous requests. The information must be submitted within 30 calendar days.
Formal Denial	If the FEMA regional administrator does not receive the requested information from the formal request within 30 calendar days, FEMA considers the subapplication to be incomplete and therefore ineligible for assistance. FEMA sends a formal denial letter at that time.

3808

3809 If the FEMA regional administrator determines additional time is needed to address the requirement,
 3810 they may choose to allow more time for an RFI. FEMA encourages subapplicants to coordinate early
 3811 with the applicant to identify potential technical assistance needs. If technical data is not readily
 3812 available, the subapplicant should coordinate with the applicant to determine whether the project
 3813 should be phased to develop the required data. Applicants may contact their FEMA regional office to
 3814 request technical assistance, relevant training or other needed support.

3815 The Request for Information process is outlined in [Figure 6](#).

Request for Information Process



3816

3817

Figure 6. Request for Information Process Flowchart

3818



Application and Submission Information Resources

3819

- Grants.gov registration: www.grants.gov/web/grants/register.html

3820

- FEMA GO webpage: <https://www.fema.gov/grants/guidance-tools/fema-go>

3821

- SF-424: *Application for Federal Assistance* <https://www.grants.gov/forms.html>

3822

- State Single Point-of-Contact List: <https://www.whitehouse.gov/wp-content/uploads/2020/04/SPOC-4-13-20.pdf>

3823

3824

- Environmental & Historic Preservation Guidance for FEMA Grant Applications:

3825

- <https://www.fema.gov/grants/guidance-tools/environmental-historic>

3826
3827
3828

- Environmental & Historic Preservation Grant Preparation Resources:
<https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources>

Part 7. Award Selection and Notification

A. Award Selection

Applicants select the subapplications to submit to the Federal Emergency Management Agency (FEMA). FEMA only reviews subapplications submitted by the applicant. For the Hazard Mitigation Grant Program and the Hazard Mitigation Grant Program Post Fire program, subapplications are reviewed on a continuous basis and are awarded if eligible. The evaluation criteria and review processes for Building Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance (FMA) programs are outlined in their yearly Notice of Funding Opportunity (NOFO).

B. Applicant Award Notification

During the application selection process for BRIC and FMA, FEMA will notify applicants whether subapplications have been identified for further review, determined eligible but will not be selected, or determined ineligible for assistance. A determination of “identified for further review” is not a notification or guarantee of an award. FEMA will work with applicants on subapplications identified for further review. Applicants will be notified of required activities such as an environmental and historic preservation (EHP) review, verification of subapplicant commitments, and/or verification of hazard mitigation plan status, as well as the date by which all required activities must be completed.

FEMA may provide comments on subapplications determined to be ineligible in order for subapplicants to modify their subapplications for resubmission in future assistance cycles.

B.1. Applicant Award Package

FEMA will provide an award package to the recipient for approved work under the federal award. Subapplicants will receive notice of award from the applicant.

The applicant award package for HMA programs generally includes:

- An award letter.
- An obligation report.
- Terms and conditions.
- EHP award conditions.
- Other conditions/compliance documentation.

3857 Applicants and subapplicants should review the EHP award conditions included in the award
3858 package for awareness and understanding. For more information about conditions, see [Part 3](#).
3859 Failure to comply with EHP award conditions may jeopardize assistance.

3860 When the applicant or subapplicant accepts an award, they are denoted as the recipient and
3861 subrecipient, respectively. The recipient and subrecipient agree to abide by the federal award terms
3862 and conditions as outlined in the award package.

3863 **B.2. Large Project Notification**

3864 Large project notification is the process by which FEMA notifies Congress of any obligations of \$1
3865 million federal share or greater before obligating an award.

3866 **C. Appeal Process for Denied Subapplicants**

3867 Applicants and subapplicants can appeal denied subapplications. This process is covered in
3868 program-specific detail in [Part 10](#).

3869 **C.1. Consideration of Additional Information**

3870 FEMA may, at its discretion, notify applicants that it will consider additional information in support of
3871 a subapplication. FEMA will accept supplemental or corrected data in support of a subapplication
3872 when submitted subapplications do not exhaust available program assistance or when determined
3873 appropriate by the program office.

3874 Instructions for submitting supplemental information will be provided within the FEMA notification
3875 letter, if applicable.

3876

Part 8. Award Administrative Requirements

3877

3878 This part of the Hazard Mitigation Assistance (HMA) Guide discusses how successful recipients and
3879 subrecipients will receive award information and assistance. Additionally, this part describes
3880 administrative requirements from the time an award is made through closeout and the maintenance
3881 actions that must occur after an activity is complete.

3882

A. Efficient and Effective Grants Management for Recipients

3883

3884 Before applying for a grant opportunity, applicants and subapplicants should commit to practicing
3885 efficient grants management and complete activities in a timely manner. Efficient grants
3886 management supports the delivery of the Federal Emergency Management Agency's (FEMA)
3887 programs.

3888 Efficient grants management includes:

3889

- Submitting complete applications.

3890

- Submitting all subapplications prior to the close of the application period.

3891

- Conducting monitoring and performance tracking of expenditures within the period of
3892 performance.

3893

- Submitting quarterly progress and financial reports on time.

3894

- Ensuring the completion of appropriate environmental and historic preservation (EHP)
3895 documentation and actions, as applicable.

3896

- Finishing mitigation activities before the end of the period of performance.

3897

- Submitting final progress and financial reports on time.

3898

- Closing the award in a timely manner.

3899

- Maintaining fiscal responsibility.

3900

- Complying with the terms and conditions of the award (including FEMA-state and FEMA-tribal
3901 agreements).

3902

- Ensuring there are trained staff who understand the program and provide technical
3903 assistance to the subrecipients.

3904 B. Responsibilities of Recipients

3905 After FEMA approves the subapplications and awards assistance, the agency transfers assistance to
3906 the applicant who, during the award stage, is referred to as the recipient (state, tribe or territory).

3907 Therefore, the applicant becomes the recipient and is generally referred to as a pass-through entity.

3908 The recipient receives the money and passes it on to the subrecipient. Because recipients/pass-
3909 through entities manage the award and subawards provided to their subrecipients, they have
3910 additional responsibilities.¹⁸⁶

3911 All pass-through entities (recipients) must:

- 3912 ▪ Ensure every subaward is clearly identified to the subrecipient as a subaward and includes
3913 all information required.¹⁸⁷
- 3914 ▪ Evaluate each subrecipient’s risk of noncompliance with federal statutes, regulations and
3915 the terms and conditions of the subaward for purposes of determining the appropriate
3916 subrecipient monitoring.¹⁸⁸
- 3917 ▪ Consider imposing additional specific subaward conditions on a subrecipient, if appropriate,
3918 and notify the subrecipient.¹⁸⁹
- 3919 ▪ Monitor the activities of the subrecipient as necessary to ensure the subaward is used for
3920 authorized purposes; that the activities comply with federal statutes, regulations, and the
3921 terms and conditions of the subaward; and that subaward performance goals are achieved.
- 3922 ▪ Review financial and progress reports.¹⁹⁰
- 3923 ▪ Submit quarterly reports to FEMA on time.
- 3924 ▪ Follow up and ensure that the subrecipient takes timely and appropriate action for all
3925 deficiencies pertaining to the federal award provided to the subrecipient from the pass-
3926 through entity detected through audits, on-site reviews and other monitoring activity.
- 3927 ▪ Issue a management decision for audit findings as required.¹⁹¹

¹⁸⁶ Recipients may have additional roles and responsibilities as outlined in the respective regulations or Notices of Funding Opportunities governing each program. For example, see [44 Code of Federal Regulations \(CFR\) § 206.433](#) for the Hazard Mitigation Grant Program and [44 CFR § 77.3](#) for the Flood Mitigation Assistance program.

¹⁸⁷ [2 CFR § 200.332\(a\)](#)

¹⁸⁸ [2 CFR § 200.332\(b\)](#)

¹⁸⁹ [2 CFR § 200.208](#)

¹⁹⁰ [44 CFR § 206.438\(c\)](#)

¹⁹¹ [2 CFR § 200.521](#)

- 3928 ▪ Verify that every subrecipient is audited, as required by [2 CFR part 200](#), when it is expected
3929 that the subrecipient’s federal awards expended during the respective fiscal year equaled or
3930 exceeded the threshold set forth in audit requirements.¹⁹²
- 3931 ▪ Consider whether the results of the subrecipient’s audits, on-site reviews or other monitoring
3932 indicate conditions that necessitate adjustments to the pass-through entity’s own records.
- 3933 ▪ Consider taking enforcement action against noncompliant subrecipients.¹⁹³

3934 **C. Assessment of Risk Posed by Recipient and**
3935 **Subrecipient Prior to Award**

3936 Prior to making an award, FEMA will evaluate a recipient to determine the level of risk when there is
3937 a history of failure to comply with general or specific terms and conditions of a federal award or
3938 failure to meet the expected performance goals. Some elements that FEMA will review include
3939 financial stability, quality of management systems, history of performance (including compliance with
3940 reporting requirements), conformance to the terms and conditions of previous awards, reports and
3941 findings from prior audits, and the ability to effectively implement statutory, regulatory and other
3942 program requirements imposed on the recipient. If FEMA determines that a federal award will be
3943 made, special conditions that correspond to the degree of risk assessed may be applied to the
3944 award.¹⁹⁴

3945 As part of the risk assessment, the federal awarding agency is required by the Improper Payments
3946 Elimination and Recovery Improvement Act of 2012¹⁹⁵ to review information available through any
3947 Office of Management and Budget-designated repositories of government-wide eligibility qualification
3948 or financial integrity information as appropriate.¹⁹⁶ FEMA must also review a recipient’s status in the
3949 System for Award Management. FEMA must comply with government-wide suspension and
3950 debarment and require that non-federal entities comply with these requirements.¹⁹⁷ Recipients must
3951 also conduct risk assessments of their subrecipients.¹⁹⁸

3952 If a recipient determines a particular risk associated with a subrecipient, the recipient may impose
3953 additional conditions or requirements.¹⁹⁹ If additional conditions and requirements are imposed,

¹⁹² [2 CFR § 200.501](#)

¹⁹³ [2 CFR § 200.339](#)

¹⁹⁴ [2 CFR § 200.206](#)

¹⁹⁵ Public Law 112-248 (January 10, 2013)

¹⁹⁶ [31 United States Code \(U.S.C.\) § 3321, note, 41 U.S.C. § 2313](#)

¹⁹⁷ [2 CFR § 200.206](#)

¹⁹⁸ [2 CFR § 200.332\(b\)](#)

¹⁹⁹ [2 CFR § 200.208](#)

3954 FEMA must promptly remove them once the conditions that prompted the additional conditions or
3955 requirements have been satisfied.²⁰⁰

3956 For HMA programs, additional conditions or requirements may include:

- 3957 ▪ Requiring payments as reimbursement rather than advance payments.
- 3958 ▪ Withholding authority to proceed to the next phase until receipt of evidence of acceptable
3959 progress within a given period of performance is provided.
- 3960 ▪ Requiring additional, more detailed financial reports.
- 3961 ▪ Requiring additional monitoring.
- 3962 ▪ Requiring the recipient or subrecipient to obtain technical or management assistance.
- 3963 ▪ Establishing additional prior approvals, such as requiring the preparation of a management
3964 plan.

3965 For those recipients that receive assistance from FEMA regularly, designated staff shall complete the
3966 risk assessment annually at the beginning of the fiscal year. For other recipients, the assessment will
3967 be completed at the time of application review and then annually until the period of performance has
3968 ended.²⁰¹

3969 Recipients can request reconsideration of the specific conditions using the appeal or reconsideration
3970 process described in [Part 10](#). If the appeal or reconsideration is successful, or if the circumstances
3971 that prompted imposing specific conditions have been corrected, FEMA must remove specific
3972 conditions.

3973 See [Part 10](#) for more information on program-specific appeals or reconsiderations.

3974 **D. Strategic Funds Management**

3975 Strategic Funds Management is FEMA's process for obligating assistance in increments based on
3976 the recipient's and/or subrecipient's schedule to execute the work, including management costs.
3977 Strategic funds management does not change the activity eligibility process but is a method of
3978 approving work and providing assistance as needed.

3979 Strategic funds management:

- 3980 ▪ Works as a tool that FEMA uses to manage funds more efficiently.

²⁰⁰ [2 CFR § 200.208\(e\)](#)

²⁰¹ [2 CFR § 200.208](#)

- 3981 ▪ Promotes fiscal responsibility and better project management by incrementally assisting
3982 activities as each project milestone is reached.
- 3983 ▪ Allows FEMA to reduce the amount of unexpended obligations over time by obligating HMA
3984 when subrecipients will use it.
- 3985 ▪ Enhances FEMA’s grants management capabilities consistent with appropriations and the
3986 Budget Control Act of 2011.²⁰²
- 3987 ▪ Helps to avoid restrictions on HMA that may occur under Immediate Needs Funding.
3988 Immediate Needs Funding is implemented to preserve assistance in the Disaster Relief Fund
3989 for the immediate needs of current or future disasters.

3990 If a subaward is appropriate for strategic funds management, FEMA and the recipient/subrecipient
3991 will review the budget and work schedule to ensure the activity supports incremental obligation.
3992 Obligations are executed in increments, based on the activity meeting an established milestone
3993 schedule, until the scope of work is completed.

3994 Strategic funds management should be used if one of the following is true:

- 3995 ▪ The federal share of a subapplication/subaward is greater than \$1 million and the
3996 recipient/subrecipient does not need assistance for more than 180 calendar days from the
3997 time the subaward is ready for obligation.
- 3998 ▪ A recipient’s management costs application is greater than \$500,000.
- 3999 ▪ A subrecipient’s management costs are greater than \$25,000.

4000 If strategic funds management is required, FEMA will obligate assistance for mitigation activities
4001 based on the schedule included with the subapplication unless contractual agreements require
4002 additional assistance. Management costs obligations will cover no more than one year unless
4003 contractual agreements require additional assistance. The recipient is responsible for notifying the
4004 subrecipient that assistance is available and for distributing the assistance to the appropriate
4005 subrecipient. Assistance that FEMA has obligated is available to the recipient to pass through to the
4006 appropriate subrecipient.

4007 **D.1. Strategic Funds Management Procedures**

4008 This section delineates the procedures for strategic funds management.

²⁰² Public Law 112-25 (August 2, 2011)

4009 **D.1.1. CONSIDERING STRATEGIC FUNDS MANAGEMENT IMPACTS FOR HAZARD**
4010 **MITIGATION ASSISTANCE SUBAPPLICATIONS**

4011 Applicants and subapplicants are encouraged to consider FEMA’s use of strategic funds
4012 management early in the decision-making process to help facilitate the development of a feasible
4013 activity budget and appropriate activity milestones. If FEMA determines an activity is suitable for
4014 strategic funds management (such as HMA activities with a \$1 million federal share or greater), the
4015 subrecipient should prepare activity budgets so that line items for logical segments of work can be
4016 selected for each obligation. This will avoid having to rework the budget later when FEMA determines
4017 the activity required strategic funds management. The work schedule should include the time frame
4018 in which subsequent obligations are anticipated.

4019 **D.1.2. EVALUATING HAZARD MITIGATION ASSISTANCE ACTIVITIES FOR STRATEGIC**
4020 **FUNDS MANAGEMENT POTENTIAL**

4021 Recipients, subrecipients and FEMA staff must evaluate all HMA activities with a \$1 million federal
4022 share or greater to determine whether the activity is a candidate for strategic funds management.
4023 This evaluation will allow FEMA to approve and obligate only the assistance drawn down by the
4024 recipient within a reasonable period.

4025 FEMA recognizes that certain activities may not be suitable for strategic funds management. The
4026 following mitigation activities are not required to use strategic funds management:

- 4027 ▪ Mitigation activities that require an approved source of assistance (full obligation) by the
4028 state, local, tribal and territorial procurement requirements for the applicant to enter
4029 procurement and contracting.
- 4030 ▪ Mitigation activities for which most of the assistance will be disbursed within 180 calendar
4031 days.

4032 If strategic funds management is not used on a mitigation activity with a federal share of \$1 million
4033 or greater, the recipient must provide proper justification to FEMA. While FEMA may decide not to
4034 apply strategic funds management to the mitigation activity, management costs may still be
4035 incrementally obligated.

4036 If a mitigation activity is selected for strategic funds management, FEMA will notify the recipient if the
4037 subaward needs to be revised to facilitate strategic funds management by adjusting budgets and
4038 schedules accordingly. The recipient must ensure the budget reflects line items that support
4039 incremental assistance based on the proposed work schedule. The recipient should coordinate with
4040 the subrecipient to revise the subaward to support strategic funds management.

4041 FEMA and the recipient must capture the proposed obligation schedule in the electronic application
4042 system.

4043 **D.1.3. LARGE PROJECT NOTIFICATION REQUIREMENTS**

4044 If any of the strategic funds management award increments are \$1 million federal share or greater,
4045 the large project notification process is required. FEMA must complete the large project notification
4046 process prior to the obligation and approval of the initial strategic funds management increment. For
4047 more information on large project notification, see [Part 7](#).

4048 **D.1.4. MANAGING SUBSEQUENT FUNDING OBLIGATIONS THROUGH QUARTERLY**
4049 **REPORTING**

4050 FEMA verifies the need for subsequent obligations through quarterly reporting. Subsequent
4051 obligations are based on subaward progress and milestones as reflected in the quarterly reports. If a
4052 recipient is not on target for scheduled assistance drawdowns or subaward completion
4053 requirements, FEMA will work with the recipient to revise the award dates and update the spend
4054 plan. For more information about spend plans, see [Part 10](#).

4055 The recipient notifies FEMA in writing (email or other correspondence) when they require assistance
4056 to meet the activity schedule. Recipients should request the release of the next increment of
4057 assistance a minimum of 30 calendar days before they need the assistance. The 30-day minimum
4058 allows FEMA and the recipient time to coordinate the spend plan and any strategic funds
4059 management schedule adjustments. Additional obligations are processed through electronic
4060 application systems pursuant to the normal course of activity implementation and subsequent
4061 assistance.

4062 FEMA regional offices are encouraged to share strategic funds management reports with recipients
4063 for ongoing coordination.

4064 **D.1.5. STRATEGIC FUNDS MANAGEMENT APPEAL PROCESS**

4065 The decision to use strategic funds management, including the timing and execution of the
4066 obligation action by FEMA, is not subject to appeal.

4067 **E. Cost Share Documentation**

4068 Requirements for cash and third-party in-kind contributions can be found in grants management
4069 regulations.²⁰³ Cash and third-party in-kind contributions are only allowable for eligible program
4070 costs; however, they are necessary and reasonable for completing the scope of work.

4071 The approved budget identifies cost share. The following documentation is required for cash and
4072 third-party in-kind contributions:

- 4073
- Identification of contributions in the approved budget.

²⁰³ [2 CFR § 200.306](#)

4074 ▪ Record of donor (who donated, quantity used, location of work provided, invoices or other
4075 documentation to determine value).

4076 ▪ Dates of donation (the donation must be within the period of performance).

4077 ▪ Rates for staffing, equipment usage, supplies, etc.

4078 ▪ Amounts of donation or value of donation.²⁰⁴

4079 ▪ Deposit slips for cash contributions.

4080 The applicant/subapplicant must keep documentation on file.

4081 Unrecovered indirect costs cannot be considered as non-federal cost share because of program and
4082 statutory requirements that define indirect costs as management costs. Management costs are
4083 subject to financial restrictions.

4084 **F. Budget Changes**

4085 Recipients are permitted to rebudget within the approved direct cost budget to meet unanticipated
4086 requirements and may make limited program changes to the approved budget.²⁰⁵ When budget
4087 changes are made, all program requirements continue to apply, and changes must be made prior to
4088 closeout. The recipient must notify FEMA as soon as an underrun or overrun is identified.

4089 The following types of post-award changes to budgets will require the prior written approval of FEMA.

4090 **F.1. Nonconstruction Subawards**

4091 For nonconstruction subawards, prior FEMA approval is required for:

4092 ▪ All nonconstruction subaward adjustments where the cumulative amount of transfers
4093 between direct cost categories exceeds or is expected to exceed 10 percent of the total
4094 budget for the award (which is the same as the federal share) as last approved by FEMA and
4095 where the federal share exceeds the Simplified Acquisition Threshold (\$250,000 as of
4096 December 12, 2017).

4097 ▪ Any changes that would result in additional assistance to the award.

4098 **F.2. Construction Subawards**

4099 For construction subawards, prior FEMA approval is required for:

²⁰⁴ [2 CFR § 200.434](#)

²⁰⁵ [2 CFR § 200.308](#), [2 CFR part 200, subpart E](#)

4100 ▪ The revision results from changes in the scope or the objective of the project or program.

4101 ▪ All construction cost adjustments that lead to the need for additional assistance to complete
4102 the project.

4103 When budget changes are made, all program requirements continue to apply. All changes must be
4104 made prior to closeout.

4105 Additional information regarding budget adjustments and revisions can be found in [2 CFR §](#)
4106 [200.308](#).

4107 **F.3. Cost Overruns and Underruns**

4108 A cost overrun or underrun to a subaward can result from a scope, schedule or budget change. A
4109 cost overrun (also known as a cost increase), or budget overrun, is an unexpected cost and may
4110 occur as the result of unfeasible cost estimates, underestimated complexity, prolonged schedules or
4111 other reasons.

4112 The recipient must notify FEMA as soon as an underrun or overrun is identified. Before redirecting
4113 underrun assistance to overrun requests within the same award, the recipient must request and
4114 receive FEMA approval. The recipient may request additional federal assistance for identified
4115 overruns, which FEMA may approve if program assistance is available. The subaward must continue
4116 to meet cost share and eligibility requirements. For example, cost overruns and underruns may
4117 affect the amount of available subrecipient management costs. See [Part 13](#) for more information.

4118 For mitigation activities, a new Benefit-Cost Analysis (BCA) may be required if the recipient requests
4119 additional assistance.

4120 **F.4. Contingencies**

4121 A contingency cost is an allowance in the total budget to cover situations that cannot be fully defined
4122 when the budget is prepared but will likely result in additional eligible costs. Allowances for major
4123 project scope changes, unforeseen risks or extraordinary events may not be included as contingency
4124 costs.

4125 For project applications, budgets may include contingencies; however, the recommended total
4126 contingency range is one to five percent. Contingency costs may be raised to seven percent for
4127 historic properties as defined under the National Historic Preservation Act.²⁰⁶ Recipients who request
4128 contingencies above these amounts must include a cost analysis that documents the percentage is
4129 reasonable.

²⁰⁶ Public Law 89-665 (October 15, 1966)

4130 Contingency costs must be included as a line item (cost category) in the budget of a project
4131 application if contingency costs have been identified. As with other line items in the budget, the
4132 subapplicant should justify the contingency estimate based on the nature of the proposed project.
4133 The total project cost, which may include contingencies, will be used to compute the BCA.

4134 Contingency assistance is not automatically available for use. Prior to its release, contingency
4135 assistance must be rebudgeted to another direct cost category. Post-award changes to the budget to
4136 access contingency assistance require prior written approval from FEMA. The written request should
4137 demonstrate what unforeseen condition related to the project arose that required the use of
4138 contingency assistance.

4139 **G. Scope of Work Change**

4140 Recipients must obtain FEMA's prior approval whenever there is a proposed scope of work
4141 change.²⁰⁷ With prior approval from FEMA, requests for post-award changes to the scope of work are
4142 permissible if they are consistent with the program's intent and submitted prior to the action being
4143 taken.

4144 Requests must be made in writing and demonstrate the need for the scope change. The request
4145 should also include a revised scope, schedule and budget. Any scope of work changes are subject to
4146 all programmatic requirements and must be approved in real time, not at closeout, to avoid
4147 disallowance of costs.

4148 All approvals will be at FEMA's discretion. Failure of the recipient to obtain prior written approval may
4149 result in the disallowance of costs. Even in cases where the recipient has authority for rebudgeting
4150 (less than 10 percent of nonconstruction activities), if a program audit determines the costs do not
4151 meet the required allowable and reasonable determination, the costs may be disallowed.

4152 **H. Period of Performance**

4153 The period of performance is the time period during which the recipient and subrecipient may incur
4154 new obligations to carry out all administrative actions and award activities and incur costs.²⁰⁸ The
4155 recipient and subrecipients are expected to complete the federal award activities including
4156 administrative actions and to incur approved assistance within the period of performance.
4157 Equipment and services and other activities funded by a subaward must be performed, delivered

²⁰⁷ [2 CFR § 200.308](#)

²⁰⁸ Period of performance is defined at [2 CFR § 200.1](#) as "the total estimated time interval between the start of an initial Federal award and the planned end date, which may include one or more funded portions, or budget periods. Identification of the period of performance in the Federal award per [§ 200.211\(b\)\(5\)](#) does not commit the awarding agency to fund the award beyond the currently approved budget period." Budget period is defined at [2 CFR § 200.1](#) as "the time interval from the start date of a funded portion of an award to the end date of that funded portion during which recipients are authorized to expend the funds awarded, including any funds carried forward or other revisions pursuant to [§ 200.308](#)." FEMA awards only include one budget period, so it will be same as the period of performance.

4158 and completed within the subaward period of performance. The recipient must include the start and
4159 end dates of the subaward period of performance in the subaward. The period of performance does
4160 not include the closeout and liquidation time frames established by 2 CFR § 200.344. Costs
4161 incurred after the period of performance are not eligible. HMA recipients and subrecipients must
4162 complete all administrative actions within the period of performance if they seek federal assistance
4163 to cover the costs.

4164 **H.1. Award Period of Performance**

4165 FEMA must include the start and end dates of the period of performance in the federal award.

4166 The period of performance for the Hazard Mitigation Grant Program (HMGP) begins with the opening
4167 of the application period and ends no later than 48 months from the close of the application period.

4168 The period of performance for Hazard Mitigation Grant Program Post Fire (HMGP Post Fire) begins at
4169 the opening of the application period (i.e., date of Fire Management Assistance Grant [FMAG]
4170 declaration) and ends 48 months after the close of the application period.

4171 Notices of Funding Opportunity (NOFOs) establish the periods of performance for the Building
4172 Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance (FMA) programs.
4173 For more information on program-specific periods of performance, see [Part 10](#).

4174 **H.2. Subaward Period of Performance**

4175 FEMA does not establish activity completion timelines for individual subawards. Recipients are
4176 responsible for establishing the subaward period of performance start and end dates at the time the
4177 subaward is granted.²⁰⁹ Recipients must include a period of performance in all subaward
4178 agreements and are responsible for ensuring that all approved activities, including management
4179 costs, are completed by the end of the subaward period of performance. The recipient must
4180 establish the subaward period of performance based on the schedule included in the subapplication.

4181 **H.3. Award Extensions**

4182 Requests for extensions to an award period of performance will be evaluated by FEMA but will not be
4183 automatically approved.

4184 For HMGP and HMGP Post Fire, the FEMA regional administrator may issue up to two extensions of
4185 the award period of performance for up to 12 months each. All requests to extend the award period
4186 of performance beyond 24 months from the original award period of performance end date must be
4187 approved by FEMA headquarters.

²⁰⁹ [2 CFR § 200.332\(a\)\(1\)\(v\)](#)

4188 Recipients must submit extension requests to the recipient’s respective FEMA region at least 90
4189 calendar days prior to the award period of performance’s expiration. If the extension request is
4190 received less than 90 calendar days prior to the award period of performance’s expiration, FEMA
4191 may deny the request.

4192 The written request must contain specific and compelling justification for why an extension is
4193 required. Recipients are advised to coordinate with the FEMA region when preparing an extension.
4194 The justification must include:

- 4195 ▪ Program name, fiscal year and award number.
- 4196 ▪ Verification that progress has been made as described in Quarterly Progress Reports²¹⁰
4197 including dates of previous extensions.
- 4198 ▪ Reason(s) for delay, including details of the legal, policy or operational challenges that
4199 prevent the final outlay of awarded assistance by the applicable deadline.
- 4200 ▪ Current status of the activity/activities.
- 4201 ▪ Period of performance termination date and new completion date.
- 4202 ▪ Amount of assistance drawn down to date.
- 4203 ▪ Remaining available assistance, both federal and non-federal.
- 4204 ▪ Budget outlining how remaining federal and non-federal assistance will be expended.
- 4205 ▪ Plan for completion, including milestones and time frames for achieving each milestone and
4206 the position/person responsible for implementing the plan for completion.
- 4207 ▪ Certification that the activity/activities will be completed within the extended period of
4208 performance without any modification to the original scope of work approved by FEMA.

4209 For BRIC and FMA, the NOFO establishes the availability of extensions and what information the
4210 Applicant should include in the extension request.

4211 FEMA will evaluate requests for extensions to an award period of performance. Based on the
4212 sufficiency of justification, FEMA may issue an extension as permitted by the guidance or NOFO. If
4213 FEMA approves the extension, the recipient will receive an updated period of performance
4214 establishment letter.

4215

²¹⁰ Quarterly Progress Reports may also be referred to as Quarterly Performance Reports.

4216 **I. Requests for Advancements and Reimbursements**

4217 It is the recipient’s responsibility to process requests for advances and reimbursements of
4218 assistance. The recipient should establish accounting procedures to disburse money to
4219 subrecipients in a timely manner and provide subrecipients with a point of contact for information on
4220 assistance to be requested and received, records that must be maintained, forms to be used, and
4221 timelines for requesting the assistance.

4222 Recipients shall submit a copy of Standard Form (SF) 270: *Request for Advance or Reimbursement*,
4223 to FEMA via the electronic application system.

4224 **J. Program Income**

4225 FEMA encourages recipients/subrecipients to generate program income to help defray program
4226 costs. Program income is gross income received by the recipient/subrecipient directly generated by
4227 an award-supported activity or earned only because of the award during the award period of
4228 performance.²¹¹ Program income may be derived from the use or rental of real or personal property
4229 acquired with award assistance as well as the sale of commodities or items fabricated under the
4230 award. Subrecipients must deduct this income from total activity costs.²¹² The recipient/subrecipient
4231 must report their program income to FEMA for the proper treatment of the program income under
4232 the award. The recipient should report program income earned under the award on its next quarterly
4233 SF-425: *Federal Financial Report*.

4234 After the period of performance, the recipient and subrecipient may generate income but are no
4235 longer required to report the income to FEMA. For example, a community may rent parcels acquired
4236 under [44 CFR part 80](#) to community members to use as garden space as long as the open space
4237 requirements and FEMA deed restrictions are followed.

4238 **K. Federal Income Tax on Mitigation Project Assistance**

4239 FEMA mitigation assistance that benefits property owners by mitigating their structures is not subject
4240 to federal income taxation. FEMA mitigation assistance used to acquire a property will be treated as
4241 an involuntary conversion for tax purposes. For more information, property owners should consult
4242 the Internal Revenue Service office or a tax advisor.

4243 **L. Remedies for Noncompliance**

4244 If a recipient fails to comply with federal statutes, regulations or terms and conditions of a federal
4245 award—whether they are stated in an assurance, a HMGP Administrative Plan or application, a notice

²¹¹ [2 CFR § 200.1](#)

²¹² [2 CFR § 200.307](#)

4246 of award, the guidance or elsewhere—FEMA may take one or more of the following actions, as
 4247 appropriate:

- 4248 ▪ Temporarily withhold cash payments pending correction of the deficiency by the recipient
 4249 and or subrecipient.
- 4250 ▪ Disallow (that is, deny both use of assistance and any applicable matching credit for) all or
 4251 part of the costs of the activity or action not in compliance.
- 4252 ▪ Wholly or partly suspend or terminate the federal award.
- 4253 ▪ Initiate suspension or debarment proceedings.
- 4254 ▪ Terminate the federal award if a recipient fails to comply with the terms and conditions of a
 4255 federal award.
- 4256 ▪ Withhold further federal awards for the activity.
- 4257 ▪ Take other remedies that may be legally available.²¹³

4258 These remedies may be applied to noncompliance findings from the U.S. Government Accountability
 4259 Office and U.S. Department of Homeland Security Office of the Inspector General audits. For single
 4260 audits, FEMA will first use the notification procedures in [Part 9](#); however, if compliance is not
 4261 achieved through implementing corrective actions, the remedies outlined in [Part 7](#) will be used.

4262 **L.1. Actions to Address Deficiencies**

4263 When there is a deficiency finding, FEMA will notify the recipient of the deficiency and request that
 4264 the issue be corrected. If compliance cannot be achieved, FEMA will apply one of the remedy actions
 4265 allowed in Remedies of Noncompliance.²¹⁴ These actions may result in the reduction of assistance,
 4266 the placement of special conditions upon the award, and/or suspension or termination of the award.

4267 FEMA will generally work with the recipient to address the deficiency using the Request for
 4268 Information (RFI) procedures. If attempts to work with the recipient do not result in compliance, the
 4269 appropriate FEMA project officer will initiate the procedures outlined in this section, such as:

- 4270 ▪ Documenting the deficiency using an RFI.
- 4271 ▪ Reviewing the deficiency to determine if it can be corrected.
- 4272 ○ If the project officer determines the recipient can correct the deficiency, the officer will
 4273 proceed with providing a compliance notification to the recipient. If the project officer

²¹³ [2 CFR § 200.339](#)

²¹⁴ [2 CFR § 200.339](#)

4274 determines the recipient cannot correct the deficiency, the officer will proceed with
4275 applying remedy actions.

4276 ○ If there is a regulation or program statute that requires FEMA to take specific
4277 enforcement action, such as administrative closeout, the project officer will proceed with
4278 providing a compliance notification to the recipient.²¹⁵

4279 This is an opportunity for the recipient to demonstrate it complies or to take actions to come into
4280 compliance prior to FEMA taking remedy actions.

4281 **L.1.1. COMPLIANCE NOTIFICATION TO RECIPIENT**

4282 After completing the RFI procedures, the FEMA regional administrator or their designee will send a
4283 written deficiency to the recipient advising of the deficiency, as well as the requirement to submit a
4284 Compliance Action Plan within 60 calendar days of the date of the notification. The notification will
4285 contain the following information:

4286 ■ The deficiency at issue, with reference to the applicable law, regulation, guidance and/or
4287 policy, and the basis for FEMA’s determination that the deficiency exists.

4288 ■ FEMA’s recommended corrective actions and completion dates to come into compliance.

4289 ■ That the recipient has a maximum of 60 calendar days from the date of the deficiency
4290 notification to submit to FEMA either of the following:

4291 ○ A proposed Compliance Action Plan detailing corrective actions and the estimated
4292 completion dates to come into compliance.

4293 ○ If the recipient does not concur with FEMA’s finding of deficiency, an explanation and
4294 documentation to show compliance.

4295 ■ That if the recipient does not demonstrate compliance within the prescribed completion
4296 dates, FEMA will take remedy action(s), which may include a reduction in assistance,
4297 placement of special conditions on the grant award, or suspension or termination of
4298 assistance.

4299 FEMA will only approve a Compliance Action Plan that includes:

4300 ■ A description of the corrective actions the recipient proposes to come into compliance with
4301 requirements.

²¹⁵ [2 CFR § 200.344](#)

- 4302 ▪ The estimated completion dates for each of the corrective action(s), with milestones. All
4303 deficiencies should be addressed prior to the end of the period of performance.

4304 If the recipient does not provide the Compliance Action Plan to FEMA within 60 calendar days, FEMA
4305 will start remedy actions. If the recipient does not concur with FEMA’s finding of deficiency, it must
4306 provide to FEMA an explanation and documentation demonstrating that the recipient complies within
4307 60 calendar days of the deficiency notification date. If FEMA determines the recipient’s explanation
4308 and documentation are not enough to demonstrate compliance, the recipient must provide a
4309 Compliance Action Plan within 30 calendar days of FEMA’s determination. Within 45 calendar days
4310 of receipt of the Compliance Action Plan, FEMA will review the proposed Compliance Action Plan and
4311 notify the recipient of the agency’s determination.

4312 If the FEMA project officer approves the proposed Compliance Action Plan, the notice will include a
4313 timeline for corrective action updates from the recipient. If the project officer does not approve the
4314 Compliance Action Plan, the notice will include the reason the Compliance Action Plan is inadequate
4315 and provide a maximum additional 60 calendar days to adequately revise the Compliance Action
4316 Plan. If after the 60-day period the project officer determines the revised Compliance Action Plan is
4317 still inadequate, or the recipient is not responsive, the project officer will start procedures to apply
4318 remedy actions.

4319 **L.1.2. COMPLIANCE ACTION PLAN MONITORING**

4320 The recipient must provide updates every 90 calendar days, which can be included in the Quarterly
4321 Progress Reports, if applicable, or more frequently as prescribed by FEMA. If the recipient does not
4322 provide the FEMA project officer with timely progress reports or is otherwise not responsive to FEMA
4323 requests, the project officer will proceed with applying remedy actions.

4324 **L.1.3. SPECIFIC AWARD CONDITIONS**

4325 Specific award conditions may include the following:

- 4326 ▪ Requiring payments as reimbursements rather than advance payments,²¹⁶ such as imposing
4327 controlled drawdowns in the appropriate Award Payment System by (1) placing any
4328 assistance on hold and (2) only releasing assistance for drawdown when the recipient
4329 provides a request for reimbursement with SF-270 and full support documentation for the
4330 requested payment.
- 4331 ▪ Withholding authority from the recipient to proceed to later phases of its activity until FEMA
4332 receives satisfactory evidence of acceptable performance within a given period of
4333 performance.

²¹⁶ [2 CFR § 200.208\(b\)](#)

- 4334 ▪ Requiring additional and/or more detailed financial or program progress reports.
- 4335 ▪ Requiring more frequent reports and/or additional information in reports on an as-needed
- 4336 basis or on a recurring schedule as deemed appropriate based on the noncompliance and
- 4337 circumstances.
- 4338 ▪ Requiring additional activity monitoring.
- 4339 ▪ Requiring the recipient/subrecipient to obtain technical or management assistance such as
- 4340 requiring technical assistance visits, desk reviews or site visits by the relevant program office
- 4341 to ensure recipients or subrecipients are taking the appropriate actions to correct
- 4342 noncompliance or if there is a need to continue monitoring as a result of noncompliance.
- 4343 ▪ Requiring the recipient or subrecipient to obtain specialized technical or management
- 4344 assistance, including but not limited to webinars targeted at specific issues or concerns,
- 4345 training from FEMA’s Procurement Disaster Assistance Team, or hiring a contractor to review
- 4346 the recipient’s financial systems and make recommendations.
- 4347 ▪ Establishing additional prior approvals.
- 4348 ▪ Placing a hold or stop payment on the grant award in the appropriate Award Payment System
- 4349 pending the recipient’s submission of satisfactory documentation showing acceptable
- 4350 performance.
- 4351 ▪ Notifying the recipient of the additional requirements, the reason the requirements are
- 4352 needed, the nature of the action needed, the time allowed for completing the actions, and
- 4353 information about the appeal process if the recipient determines the issues have been
- 4354 resolved.²¹⁷

4355 **L.1.4. REQUESTS FOR CLOSURE AND DETERMINATION ON CORRECTIVE ACTIONS**

4356 The recipient must provide documentation to demonstrate they have come into compliance and
4357 request closure of the relevant finding(s) of deficiency. If, after review of the recipient’s request for
4358 closure, the FEMA project officer determines the recipient completed the corrective action(s), the
4359 project officer will notify the recipient in writing of its compliance determination within 30 calendar
4360 days.

4361 **L.1.5. DETERMINATION THAT RECIPIENT DID NOT COME INTO COMPLIANCE**

4362 If, after reviewing the supporting documentation, the FEMA project officer determines the recipient
4363 did not complete the corrective action(s), the project officer will start procedures to apply remedy
4364 actions.

²¹⁷ [2 CFR § 200.208](#) and [2 CFR § 200.208\(c\)](#)

4365 The project officer will consider the recipient’s failure to comply with a Compliance Action Plan as an
4366 aggravating factor and will start procedures to apply remedy actions.

4367 **L.1.6. APPLYING REMEDY ACTIONS**

4368 If the FEMA project officer determines the recipient could not or did not correct the deficiency, the
4369 project officer will proceed to apply remedy actions by notifying the recipient of such action within 30
4370 calendar days. The notice will contain the following:

- 4371 ▪ The requirement(s) at issue, with a reference to the applicable regulation and/or policy, and
4372 the basis for FEMA’s determination that the deficiency exists.
- 4373 ▪ Actions taken by the recipient, if any, to attempt to come into compliance, and actions taken
4374 by FEMA, if applicable, to assist the recipient with coming into compliance.
- 4375 ▪ Notification that FEMA is applying remedy action(s) and the effective date.
- 4376 ▪ Notice of the recipient’s opportunity to object through an appeal procedure.

4377 **L.1.7. MITIGATING AND AGGRAVATING FACTORS**

4378 FEMA reviewers can use remedies of noncompliance by considering mitigating and aggravating
4379 factors when determining which option to apply. FEMA may consider mitigating and aggravating
4380 factors in determining whether to apply remedies of noncompliance.

4381 Mitigating factors include:

- 4382 ▪ Minor or single instance of deficiency.
- 4383 ▪ Emergency or extenuating circumstances directly impacting ability to comply.
- 4384 ▪ First-time deficiency.
- 4385 ▪ Capacity of the recipient (such as needing technical assistance to apply for an extraordinary
4386 HMGP award).
- 4387 ▪ Recipient self-identifies deficiency to FEMA along with a Compliance Action Plan to address.
- 4388 ▪ Unheeded requests for assistance from the recipient to FEMA to ensure compliance with new
4389 or involved grant requirements.
- 4390 ▪ Attendance at training events to better understand grant requirements.
- 4391 ▪ Deficiency is the result of incorrect or delayed information provided by FEMA.
- 4392 ▪ Other factors that the FEMA reviewer articulates in writing that indicate a relief is needed to
4393 manage the award.

4394 Aggravating factors include:

- 4395 ▪ Experienced or sophisticated recipient or subrecipient with repeated prior instances of
4396 noncompliance.
- 4397 ▪ Numerous instances of noncompliance with the same activity, subaward or award.
- 4398 ▪ Civil or criminal penalties associated with the noncompliance.
- 4399 ▪ Nonresponsiveness to FEMA requests.
- 4400 ▪ Fraudulent reporting or evidence of other deliberate intent to not follow requirements.
- 4401 ▪ Prior instances of fraud, waste and abuse.
- 4402 ▪ Failure to process required grants management activities in a timely manner.
- 4403 ▪ Declining or refusing to attend trainings explaining grants management requirements.
- 4404 ▪ Disregarded or failed opportunity to correct the noncompliance.
- 4405 ▪ Other factors that the compliance official articulates in writing that indicate a more severe
4406 remedy action.

4407 **M. Award Termination**

4408 The federal award, whether the award or subaward, may be terminated in whole or in part under the
4409 following circumstances:

- 4410 ▪ By FEMA or the recipient, if the recipient or subrecipient fails to comply with the terms and
4411 conditions of the award. If the noncompliance can be corrected, FEMA may first attempt to
4412 direct the recipient to correct the noncompliance.²¹⁸ For information on the remedies on
4413 noncompliance and notification procedures, see [Part 8](#). FEMA may report in the Federal
4414 Awardee Performance and Integrity Information System.
- 4415 ▪ By FEMA or the recipient, if the subaward no longer effectuates the program goals or agency
4416 priorities.
- 4417 ▪ By FEMA, with the recipient’s consent, or by the recipient with the subrecipient’s consent. In
4418 either instance, the two parties must agree with the termination conditions, including the
4419 effective date and, in the case of a partial termination, the portion to be terminated. Only the
4420 consent of the two relevant parties is required for the termination.

²¹⁸ [2 CFR § 200.341](#), [2 CFR § 200.342](#)

4421 ▪ By the subrecipient upon sending to the recipient or FEMA written notification of the
4422 termination, including the reason for the termination, the effective date, and—in the case of a
4423 partial termination—the portion to be terminated. In the case of partial termination, FEMA
4424 may determine that a partially terminated award will not accomplish the purpose of the
4425 federal award, so FEMA may terminate the award in its entirety. If that occurs, FEMA will
4426 follow the requirements of [2 CFR § 200.341](#) and [2 CFR § 200.342](#) in deciding to fully
4427 terminate the award.

4428 ▪ By FEMA or the recipient pursuant to the termination provisions included in the award.

4429 FEMA and the recipient must comply with closeout requirements even if an award is terminated
4430 in whole or in part.²¹⁹

4431 **N. Davis-Bacon and Related Acts**

4432 The Davis-Bacon and Related Acts (Davis-Bacon Act) ²²⁰ require the payment of prevailing wages on
4433 certain federally funded or funded construction activities. The Davis-Bacon Act does not apply to
4434 HMA programs as it is not required by the programs’ authorizing statutes. However, Davis-Bacon Act
4435 compliance may be required if HMA is used in conjunction with another federal agency’s grant, such
4436 as Community Development Block Grant Disaster Recovery funding from the U.S. Department of
4437 Housing and Urban Development or if required by state, local, tribal and territorial government laws.

²¹⁹ [2 CFR § 200.340\(a\)](#), [2 CFR § 200.344](#), [2 CFR § 200.345](#)

²²⁰ Public Law 107-217 (August 21, 2002), as amended

Part 9. Award Monitoring and Closeout Requirements

A. Reporting

Recipients and subrecipients must maintain records of work and expenditures. Recipients must submit quarterly financial and progress reports to the Federal Emergency Management Agency (FEMA) on January 30, April 30, July 30 and October 30.²²¹ In the Hazard Mitigation Assistance Program and Policy Guide (HMA Guide), performance reports are referred to as “progress reports” to align with references in program regulations. Progress and performance reports are subject to the same requirements. The first quarterly reports are due within 30 calendar days of the end of the first federal quarter following the initial award. FEMA may waive the initial progress reports by sending a read receipt email to the recipient’s hazard mitigation officer or designated representative. The recipient must submit quarterly financial and progress reports thereafter until the award is closed out. Failure to submit timely financial and progress reports to FEMA may result in an inability to access assistance until FEMA receives the proper reports.

A.1. Federal Financial Reports

Recipients shall submit a quarterly Federal Financial Report (SF-425) throughout the period of performance, including partial calendar quarters as well as in periods where no activity occurs. Obligations and expenditures must be reported quarterly using approved forms, which are due to FEMA within 30 calendar days of the end of each calendar quarter (e.g., for the quarter ending March 31, the Federal Financial Report is due no later than April 30). Future awards and assistance drawdowns may be withheld if these reports are delinquent. The final Federal Financial Report is due 120 calendar days after the end date of the period of performance.²²²

Except for the final Federal Financial Report required for closeout, the reporting periods and due dates are described in [Table 9](#).

Table 9: Federal Financial Report Timing

Quarter	Reporting Period	Report Due Dates
1	October 1 – December 31	January 30
2	January 1 – March 31	April 30
3	April 1 – June 30	July 30

²²¹ [44 Code of Federal Regulations \(CFR\) § 206.438\(c\)](#), [2 CFR § 200.328](#), [2 CFR § 200.329](#)

²²² [2 CFR § 200.344](#)

Quarter	Reporting Period	Report Due Dates
4	July 1 – September 30	October 30

4463

4464 Reports are submitted via FEMA’s electronic application systems unless otherwise directed by the
4465 region.

4466 **A.2. Quarterly Progress Reports**

4467 The recipient shall submit a Quarterly Progress Report for each award to report on the progress of
4468 their award. Recipients/subrecipients are required to complete and submit Quarterly Progress
4469 Reports to their respective FEMA region 30 calendar days after the end of each fiscal quarter
4470 following the initial award and thereafter until the award ends. Reports must be submitted
4471 throughout the period of performance, including partial calendar quarters, as well as for periods
4472 where no award activity occurs. FEMA may suspend drawdowns from federal financial systems (e.g.,
4473 Payment Management System [SMARTLINK] or Payment and Reporting System [PARS]) if Quarterly
4474 Progress Reports are not submitted on time. FEMA’s decision to extend the period of performance
4475 for the award or for management costs may be affected by inconsistent data in the Quarterly
4476 Progress Reports and in the recipient’s request.

4477 Quarterly Progress Reports should include:

- 4478 ▪ Project identification information, including FEMA project number (including disaster number
4479 and declaration date for the Hazard Mitigation Grant Program [HMGP]), subrecipient name,
4480 and project type using FEMA’s electronic application systems’ standard project type codes.
- 4481 ▪ Significant activities and developments that have occurred or have shown progress during
4482 the quarter, including a comparison of actual completion date to the work schedule
4483 objectives established in the subaward.
- 4484 ▪ Percent completion and whether the completion of work is on schedule and anticipated
4485 completion date. Percent completion is the percentage of the work that has been completed
4486 to date. More information on 100 percent completion is provided in [Part 9, C.1. 100 Percent](#)
4487 [Work Completion](#) below.
- 4488 ▪ Status of costs, including whether the costs are unchanged, overrun or underrun.
- 4489 ▪ Incremental assistance amounts (strategic funds management) and progress completed.
- 4490 ▪ For HMGP, Hazard Mitigation Grant Program Post Fire (HMGP Post Fire) and Building
4491 Resilient Infrastructure and Communities (BRIC), if Phase I of a Phase II project is complete,
4492 the percent complete should be noted as a percentage of the entire project (e.g., 50 percent
4493 or whatever is deemed appropriate by the recipient).

- 4494 ○ If Phase II is not eligible and will therefore not move forward, the project is considered
- 4495 100 percent complete. However, if Phase II is eligible/obligated, the Quarterly Progress
- 4496 Report should reflect 100 percent only once the approved scope of work is completed
- 4497 under Phase II.

- 4498 ■ For acquisition or relocation projects only, indication of the total properties and property
- 4499 identification list.

- 4500 ■ Items in the comment column:

- 4501 ○ A brief narrative describing any change in cost status.

- 4502 ○ A discussion of any problems, delays or adverse conditions that will impair the ability to
- 4503 meet the timelines stated in the subaward.

- 4504 ○ The current status of each acquired property for which settlement was completed in that
- 4505 quarter.

- 4506 ○ A statement of whether a request to extend the award period of performance is
- 4507 anticipated.

- 4508 ○ Any other information that FEMA may require.

4509 For BRIC and the Flood Mitigation Assistance (FMA) program, Quarterly Progress Reports must be
 4510 used and submitted via FEMA’s electronic application systems. For BRIC and FMA, additional
 4511 reporting requirements may be included in the respective Notice of Funding Opportunity (NOFO). For
 4512 more information about HMGP Quarterly Progress Reports, see [Part 10](#).

4513 **A.3. Final Reports**

4514 Subrecipients must submit final financial and progress reports to the recipient when they complete
 4515 the required work and administrative actions. Subrecipients must submit final reports to the
 4516 recipient no later than 90 calendar days after the subaward period of performance end date.

4517 For each subaward, the recipient must submit final financial and progress reports to FEMA when
 4518 they determine that the subrecipient has completed the required work and administrative actions.
 4519 Recipients must submit subaward final reports to FEMA no later than 120 calendar days after the
 4520 subaward period of performance.

4521 For the award, the recipient must submit final financial and progress reports to FEMA when all
 4522 required work and administrative actions have been completed. The recipient must submit the final

4523 financial and progress reports to FEMA no later than 120 calendar days after the award period of
4524 performance end date.²²³

4525 **A.4. Actions to Address Reporting Deficiencies**

4526 All financial and progress reports must be complete and submitted on time. Information in the
4527 reports must accurately describe award and subaward activities, including data related to the
4528 completion of individual property acquisitions. Incomplete progress reports that do not provide
4529 information on all open awards and subawards are considered late. When reports are incomplete or
4530 late, FEMA will notify the recipient of the deficiency and request that the issue be corrected following
4531 procedures in [Part 8](#). If compliance cannot be achieved, FEMA will apply one of the remedy actions
4532 allowed in [2 Code of Federal Regulations \(CFR\) § 200.339](#). These actions may result in the reduction
4533 of assistance, the placement of special conditions upon the award and/or the suspension or
4534 termination of the award.

4535 **B. Monitoring Requirements**

4536 Monitoring is the responsibility of both FEMA and the recipient. It occurs in several different ways,
4537 including the review of Quarterly Progress Reports, site visits, desk reviews or reviewing audit
4538 findings. If an issue is identified, FEMA or the recipient may provide technical assistance as
4539 necessary. FEMA will also provide a written report of the findings that may include actions that the
4540 recipient must take to address noncompliance.

4541 After FEMA makes the award or subaward, both the recipient and the subrecipient are required to
4542 monitor and evaluate the progress of the mitigation activity in accordance with the terms outlined in
4543 the following documents:

- 4544 ▪ Approved scope of work and budget.
- 4545 ▪ Environmental and historic preservation (EHP) award conditions that may require best
4546 management practices or monitoring of site conditions (mitigation projects only).
- 4547 ▪ Any other award terms and conditions.
- 4548 ▪ Administrative requirements.²²⁴
- 4549 ▪ Applicable state, local, tribal and territorial government requirements.

4550 Monitoring requirements are found in the activity-type specific sections (see [Part 11](#) and [Part 12](#)).

²²³ [2 CFR § 200.329](#), [2 CFR § 200.344\(a\)](#)

²²⁴ [2 CFR part 200](#)

4551 Sound activity monitoring improves the efficiency of the activity implementation process and the
 4552 obligation of the assistance process. The use of quarterly progress and financial reporting facilitates
 4553 project management and allows the recipient and FEMA to monitor obligations and any unliquidated
 4554 assistance.

4555 **B.1. Quarterly Progress Report Review**

4556 Recipients should review the Quarterly Progress Reports for all open activities using the following
 4557 evaluation criteria:

- 4558 ▪ Ensuring the subrecipients are making adequate progress.
- 4559 ▪ Meeting any requirements for matching or cost sharing.
- 4560 ▪ Spending assistance only for allowable costs.
- 4561 ▪ Maintaining adequate systems.
- 4562 ▪ Ensuring the subrecipient is accountable for federal or federally generated resources, such
 4563 as program income, federally owned property or property acquired under the award.

4564 Recipients must also ensure that recipient and subrecipient management costs are validated
 4565 quarterly. Any action taken to address a deficiency should be noted in the Quarterly Progress Report.
 4566 The Quarterly Progress Report gives FEMA staff information needed to identify and address recipient
 4567 problems before they become serious, provide technical assistance (including mitigation planners) or
 4568 take other appropriate action. In addition, FEMA is also responsible for validating recipient and
 4569 subrecipient management costs across all open awards.

4570 **B.2. Improper Payment**

4571 An improper payment is any payment that FEMA made that was obligated to and drawn down by the
 4572 recipient and FEMA later determines was made with an incorrect amount (including overpayments
 4573 and underpayments) under statutory, contractual, administrative or other legally applicable
 4574 requirements. Improper payments may include:

- 4575 ▪ Any payment to an ineligible party.
- 4576 ▪ Any payment for an ineligible good or service.
- 4577 ▪ Any duplicate payment.
- 4578 ▪ Any payment for a good or service not received (except for such payments where authorized
 4579 by law).
- 4580 ▪ Any payment that does not account for credit for applicable discounts.

- 4581 ▪ Any payment where insufficient or lack of documentation prevents a reviewer from discerning
4582 whether a payment was proper.

4583 **B.3. Actions to Address Deficiencies Identified During Monitoring**

4584 Based on a review of progress and financial reports, FEMA may notify the recipient of the deficiency
4585 and request that the issue be corrected following procedures in [Part 8](#). If compliance cannot be
4586 achieved, FEMA will apply one of the remedy actions allowed in [2 CFR § 200.339](#). These actions may
4587 result in the reduction of assistance, the placement of special conditions upon the award and/or
4588 suspension or termination of the award.

4589 **C. Closeout Requirements**

4590 Upon completion, the recipient and subrecipient are required to close out the subaward or federal
4591 award. In accordance with [2 CFR § 200.344](#), the subrecipient has 90 calendar days from the
4592 subaward period of performance to provide the report to the recipient, and the recipient has 120
4593 calendar days following the end of the award period of performance to submit all reports for the
4594 federal award. Timely submission is important because under 2 CFR § 200.344(g), the awarding
4595 agency or the pass-through entity [recipient] must make every effort to complete all closeout actions
4596 for federal awards no later than one year after receipt of final reports. This section discusses
4597 subaward and award closeout.

4598 The closeout process will verify that:

- 4599 ▪ The approved scope of work was completed.
- 4600 ▪ All obligated assistance was liquidated consistent with the approved scope of work.
- 4601 ▪ All EHP conditions were completed and documented.
- 4602 ▪ All jurisdictions have adopted the mitigation plan (mitigation planning subawards only), or a
4603 scope of work change to remove nonadopting jurisdictions has been approved.
- 4604 ▪ The activity was completed consistently with the award or subaward agreement.
- 4605 ▪ The recipient submitted all required financial and progress reports.
- 4606 ▪ The federal award and subaward were closed out in accordance with the provisions outlined
4607 in [Part 9](#).

4608 **C.1. 100 Percent Work Completion**

4609 Based on the subrecipient’s report to the recipient, 100 percent work completion is the date on
4610 which all work associated with the approved scope of work is complete, including meeting all
4611 compliance requirements (e.g., jurisdiction adoption, EHP, code and permit certifications, obtain

4612 insurance). This work does not include associated award administrative actions (e.g., submitting
4613 payments of claims or certifications to the recipient for subaward closeout, financial reconciliation or
4614 recipient site inspections). If a subsequent recipient site visit does not verify that work was
4615 completed in compliance with the award and subaward terms, the work completion status is not 100
4616 percent. On their next progress report, the recipient should correct the report of work completion.
4617 The recipient or FEMA may determine that any noncompliance with the approved scope of work
4618 identified during closeout results in disallowed costs under the award.

4619 For hazard mitigation planning and planning-related activities, 100 percent work completion is also
4620 when all work within the approved scope of work is complete. For HMA planning subawards, 100
4621 percent work completion is on the date FEMA issues the approval letter after adoption by the
4622 jurisdiction(s). FEMA will not delay closeout in cases where some jurisdictions are not actively
4623 pursuing plan adoption and approval under a multi-jurisdictional plan and the subaward may not be
4624 compliant with the scope of work/subaward conditions. In addition, FEMA will not delay closeout
4625 while remedies of noncompliance are under FEMA review.

4626 For more information on 100 percent work completion requirements for specific planning activities,
4627 see [Part 11](#).

4628 **C.2. Subaward Closeout**

4629 Subaward closeout is the process by which the recipient verifies that a subaward scope of work has
4630 been completed as approved and that all reimbursed costs were eligible.

4631 **C.2.1. RECIPIENT RESPONSIBILITIES TO SUBAWARD CLOSEOUT**

4632 The recipient has primary responsibility for the closeout tasks associated with both the program and
4633 subrecipient requirements. The recipient must conduct final inspections for activities, reconcile
4634 subrecipient expenditures, resolve negative audit findings, obtain final reports from subrecipients
4635 and reconcile the closeout activities of subrecipients with award requirements.²²⁵ These activities
4636 cannot extend beyond the award period of performance.

4637 The end date for a subaward period of performance must occur no later than the end date of the
4638 period of performance for federal awards detailed in [Part 8, H.1. Award Period of Performance](#).

4639 Unless the recipient sets an earlier deadline for the subrecipient's subaward period of performance
4640 and reporting deadlines, the subrecipient has 90 calendar days from the end of the subaward period
4641 of performance to submit final reports to the recipient.²²⁶ The recipient then has an additional 30

²²⁵ [2 CFR § 200.344](#)

²²⁶ If the recipient has not established a period of performance for the subaward and has not agreed to an earlier final reporting date when the subrecipient's final financial, progress and other required reports are due, the subrecipient's period of performance ends when the recipient's period of performance ends, and 2 CFR § 200.344 deadlines dictate when financial, progress and any other reports are due for the recipient and subrecipient.

4642 calendar days to submit final reports to FEMA. All reports are due to FEMA 120 calendar days after
4643 the end of the award period of performance.

4644 FEMA encourages recipients to establish subaward periods of performance and due dates for
4645 progress and any other reports that end earlier than the award period of performance. Setting earlier
4646 deadlines for subawards will allow the recipient additional time to submit all required reports and
4647 perform closeout activities prior to the end of the award period of performance.²²⁷

4648 **C.2.2. SUBAWARD CLOSEOUT TIME FRAME AND LIQUIDATION TIME FRAMES**

4649 A subrecipient must submit to the recipient, no later than 90 calendar days (or an earlier date as
4650 agreed upon by the recipient and subrecipient) after the end date of the subaward period of
4651 performance, all financial, performance, and other reports as required by the terms and conditions
4652 of the federal award.²²⁸ Unless the recipient authorizes an extension, the subrecipient must liquidate
4653 all financial obligations incurred under the federal award no later than 120 calendar days after the
4654 end date of the subaward period of performance.²²⁹

4655 If the recipient or subrecipient does not submit all reports in accordance with this section within one
4656 year of the award period of performance end date, FEMA must report the recipient or subrecipient's
4657 material failure to comply with the terms and conditions of the award with the Office of Management
4658 and Budget (OMB)-designated integrity and performance system (currently the Federal Awardee
4659 Performance and Integrity Information System).²³⁰ FEMA may also pursue other enforcement actions
4660 according to [2 CFR § 200.339](#).

4661 **C.2.3. REQUIRED SUBAWARD CLOSEOUT DOCUMENTATION**

4662 A completed [HMA Closeout Checklist](#) should be submitted to FEMA.

4663 The recipient will submit a claim signed by the governor's authorized representative, tribal authorized
4664 representative or an executive authorized signature authority.²³¹ The claim will certify that:

- 4665 ▪ The reported costs were incurred in the performance of eligible work.
- 4666 ▪ The approved work was completed.
- 4667 ▪ The mitigation activity complies with the provisions of the award agreement.

4668 Additionally, the subaward closeout request must include the following:

²²⁷ FEMA only reimburses costs that occurred during the award period of performance. If the recipient or subrecipient conduct closeout and liquidation after the award period of performance ends, these costs are not eligible.

²²⁸ [2 CFR § 200.344\(a\)](#)

²²⁹ [2 CFR § 200.344\(b\)](#)

²³⁰ [2 CFR § 200.344\(i\)](#)

²³¹ [44 CFR § 206.438\(d\)](#), [2 CFR § 200.344](#)

- 4669 ▪ Document of non-federal match.
- 4670 ▪ Verification that any program income has been deducted from total activity costs as specified
4671 in [2 CFR § 200.307](#).
- 4672 ▪ For project subawards, final site inspection report that contains the name of the inspector,
4673 position of the inspector, date of inspection and verification that work was completed. The
4674 report should include photographs of the completed project clearly labeled with the FEMA
4675 project number, subrecipient name, property address and latitude/longitude to the nearest
4676 sixth decimal place, and source of the photograph.
- 4677 ○ Depending on the activity, FEMA may require multiple photographs of the exterior and
4678 interior of the properties and the structures or improvements in order to certify that the
4679 approved scope of work was completed.
- 4680 ▪ Final SF-425, *Federal Financial Report*.
- 4681 ▪ SF-428, *Tangible Personal Property Report*, if applicable.
- 4682 ▪ Final activity costs, including federal share, non-federal share, management costs (if
4683 applicable) and any modifications, such as approved underrun and overrun requests.
- 4684 ▪ Latitude and longitude to the nearest sixth decimal place.
- 4685 ○ For flood reduction, hazardous fuels reduction and soil stabilization projects, an accurate
4686 recording of the official acreage, using open file format geospatial files (i.e., shapefiles),
4687 must be submitted.
- 4688 ▪ Documentation that lists the environmental conditions that must be met when the project is
4689 carried out (from the Record of Environmental Considerations or Environmental Assessment)
4690 and certification that the project was completed in compliance with those environmental
4691 conditions. If conditions were assigned to the project, provide copies of EHP compliance
4692 documentation (such as an environmental permit).
- 4693 ▪ Certification that the project meets National Flood Insurance Program (NFIP) requirements (if
4694 applicable).
- 4695 ▪ For new or updated hazard mitigation plans, a final copy of the approved plan.
- 4696 ▪ For planning-related activities, documentation that the completed activity was consistent
4697 with the approved scope of work.²³²

²³² [44 CFR part 206](#)

4698 ▪ Copies of deliverables identified in the scope of work, if applicable.

4699 For activity-specific requirements, see [Part 11](#), [Part 12](#) and [Part 13](#). Recipients should close out
 4700 subawards as activities are completed. In addition, as cost underruns are identified, the recipient
 4701 should submit deobligation requests to FEMA.

4702 **C.2.4. SUBAWARD PROCEDURES**

4703 FEMA will advise the recipient of the closeout requirements through the award agreement and the
 4704 HMA Guide. The recipient will advise the subrecipient of closeout requirements through the state-
 4705 subrecipient agreement.

4706 Upon the completion of each subaward, the recipient submits a closeout request to FEMA for review
 4707 and concurrence.

4708 FEMA will review all closeout documentation for compliance and may send the recipient a Request
 4709 for Information (RFI) if needed. FEMA will review the closeout request to verify that the approved
 4710 mitigation measure complies with all subaward requirements associated with the subaward. The
 4711 recipient must follow up on and complete all requests.

4712 All correspondence (electronic or otherwise) related to closeout, including RFIs, should be
 4713 maintained in the file.

4714 If FEMA does not concur with the closeout request, the agency will document the finding using the
 4715 RFI process (see [Part 7](#)) to advise the recipient of the reason(s) for nonconcurrence, request
 4716 additional information and/or explain the corrective actions needed to resolve the noncompliance
 4717 issues. The recipient must follow up and complete all requests. If the requested information is not
 4718 submitted, FEMA may disallow costs.

4719 A subaward is officially closed when FEMA approves the request and sends a closeout letter to the
 4720 recipient confirming the final federal expenditures for the subaward. The recipient will send the
 4721 subrecipient confirmation that their subaward has been officially closed by FEMA.

4722 **C.2.5. SUBAWARD PROCEDURES STATUTE OF LIMITATIONS OF DISALLOWED COSTS FOR**
 4723 **HMGP**

4724 Unless there is evidence of civil or criminal fraud, FEMA cannot initiate administrative action in any
 4725 forum to recover any payment made to a state or a local government for disaster or emergency
 4726 assistance after the date that is three years after the date of transmission of the final expenditure
 4727 report for project completion as certified by the recipient.²³³

²³³ Section 705 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 100-707 (November 23, 1988); amending the Disaster Relief Act of 1974, Public Law 93-288 (May 22, 1974); [42 United States Code \(U.S.C.\) § 5205](#)

4728 **C.2.6. NOTICE AND DEMAND LETTERS**

4729 If FEMA identifies a debt, the FEMA Finance Center will notify the recipient in writing, subsequent to
4730 completion of the appeal process, of the type and amount of debt due, and to provide the recipient
4731 with all required notices.

4732 **C.2.7. ACTIONS TO ADDRESS CLOSEOUT DEFICIENCIES**

4733 When closeout documentation is incomplete or late, FEMA will notify the recipient of the deficiency
4734 and request that the issue be corrected following procedures in [Part 8](#). If compliance cannot be
4735 achieved, FEMA will apply one or more of the remedy actions allowed in [2 CFR § 200.339](#). These
4736 actions may result in the temporary withholding of cash payments, reduction of assistance, the
4737 placement of special conditions upon the award, suspension or termination of the award, or
4738 withholding further awards for the program.

4739 **C.2.8. SUBRECIPIENT RECORDS RETENTION**

4740 Financial records, supporting documents, statistical records and all other subrecipient records
4741 pertinent to a federal award must be retained for three years from the date of submission of the final
4742 expenditure report.²³⁴ The final expenditure report is final payment of claim to FEMA for each
4743 mitigation activity/subaward, as required by FEMA regulation, policy and guidance. FEMA will confirm
4744 the report after the receipt of a complete and accurate claim. The confirmed, complete and accurate
4745 subaward closeout report is the final expenditure report.

4746 There are some exceptions where the retention period may be longer than three years as noted and
4747 required by the recipient.²³⁵ The following examples are the most common instances:

- 4748 ▪ When FEMA notifies the recipient/subrecipient in writing, the cognizant agency for audit,
4749 oversight agency for audit, cognizant agency for indirect costs, or pass-through entity to
4750 extend the retention period, the recipient/subrecipient must keep records for as long as
4751 indicated in the notification, which may be longer than three years.

- 4752 ▪ Records for real property and equipment acquired with federal assistance must generally be
4753 retained for three years after disposition. Records for project types where property may be
4754 acquired (safe rooms, flood risk reduction measures, and property acquisition and structural
4755 demolition/structure relocation) must be kept for the project useful life.

²³⁴ [2 CFR §§ 200.334-337](#)

²³⁵ [2 CFR §§ 200.334-337](#)

4756 **C.3. Recipient Management Costs Closeout**

4757 Management costs closeout is the process by which the recipient and FEMA verify that all
 4758 reimbursed costs were eligible. The recipient submits a request to FEMA to close out management
 4759 costs; the final payment of management costs is based on actual costs incurred.

4760 Upon completion of the last nonmanagement costs subaward, the recipient should submit a letter to
 4761 FEMA, signed by the governor’s authorized representative, tribal authorized representative or an
 4762 executive authorized signature authority, certifying that the reported costs were incurred in the
 4763 management of the HMA award.

4764 The letter must include:

- 4765 ▪ A final accounting of eligible management costs. In addition, as cost underruns are
 4766 identified, the recipient should submit deobligation requests to FEMA.
- 4767 ▪ Documentation for cost share, which is required for BRIC/FMA awards and subawards.
- 4768 ▪ Confirmation that recipient has time and attendance records on file. The actual records do
 4769 not need to be sent to FEMA; however, FEMA must confirm they are retained.
- 4770 ▪ A statement confirming that additional supporting documentation for management costs
 4771 expenditures is available upon request.

4772 The recipient must liquidate all obligations incurred under the period of availability no later than 120
 4773 calendar days after the period of performance expiration. The 120-day liquidation period may be
 4774 extended (at the recipient’s request) but cannot extend beyond the expiration of the availability
 4775 period. FEMA will deobligate any assistance not liquidated by the recipient.

4776 **C.3.1. RECIPIENT MANAGEMENT COSTS ADMINISTRATIVE PLAN REQUIREMENTS**

4777 For HMGP and HMGP Post Fire, costs incurred must comply with the procedures outlined in the
 4778 recipient’s HMGP and HMGP Post Fire Administrative Plan.

4779 FEMA reviews the supporting documentation for personnel costs and validates those costs across all
 4780 open HMGP and HMGP Post Fire disasters administered by the recipient. This review is done to verify
 4781 that employees’ salaries, contractor costs and actual costs paid from disaster awards are the
 4782 following:

- 4783 ▪ Distributed equitably and do not exceed 100 percent.
- 4784 ▪ Equivalent to salaries paid in similar positions for non-federal awards.
- 4785 ▪ Not duplicating direct or management costs provided under subawards.
- 4786 ▪ In support of activities described in the recipient’s request for management cost assistance.

4787 The recipient must submit form SF-428 if applicable. If not applicable, a statement must be included
 4788 in the closeout cover letter.

4789 **C.3.2. RECIPIENT MANAGEMENT COSTS RECORDS RETENTION**

4790 Financial records, supporting documents, statistical records and all other recipient records pertinent
 4791 to management costs must be retained for at least three years from the submission of the final
 4792 expenditure report. Exceptions that may extend the retention period are defined in [2 CFR § 200.334](#).

4793 **C.4. Recipient Award Closeout and Liquidation Time frames**

4794 The recipient has up to 120 calendar days following the award period of performance’s expiration to
 4795 submit all financial, progress and other reports required by FEMA. All administrative actions for which
 4796 the recipient is claiming costs must be completed during the award period of performance, except
 4797 the actual submission of the required reports. Any payment made beyond the closeout and
 4798 liquidation end date, for eligible costs incurred during the period of performance, is considered an
 4799 improper payment. If the recipient needs additional time to liquidate eligible costs incurred during
 4800 the period of performance, they may request a closeout and liquidation extension.

4801 The recipient must complete the following activities to close out the award:

- 4802 ▪ Ensure all subawards have been closed out.
- 4803 ▪ Reconcile/adjust subaward costs, ensuring that non-federal share costs are documented,
 4804 and that all costs submitted are eligible according to the FEMA-approved scope of work.
- 4805 ▪ Receive and process cost adjustments or return unobligated assistance to FEMA via
 4806 SMARTLINK or PARS. FEMA makes the final payment to the recipient.
- 4807 ▪ Notify FEMA that the award is ready for final closeout.

4808 By the end of the closeout and liquidation period, the recipient must submit the following to FEMA:

- 4809 ▪ A closeout letter signed by the governor’s authorized representative, tribal authorized
 4810 representative or an executive authorized signature authority to FEMA with supporting
 4811 documentation, including:
 - 4812 ○ A statement that the scopes of work have been completed as approved.
 - 4813 ○ SF-425 (for PARS, the final SF-425 is also submitted via PARS).
 - 4814 ○ SF-270, *Request for Advance or Reimbursement*, if applicable, or request for
 4815 deobligation of unused assistance, if applicable.
 - 4816 ○ SF-428, if applicable.

- 4817 ○ SF-429, “Real Property Status Report,” if applicable.
- 4818 ○ A statement that no inventions were made, nor patents applied for in the implementation
- 4819 of the award.
- 4820 ○ Other documents required by applicable laws and regulations, the HMA Guide or NOFO,
- 4821 terms and conditions of the award, or other FEMA guidance.

4822 An inventory of all construction projects that used funds from this program must be reported with the
4823 final progress report.

4824 The closeout submission will not be considered an official submission without the signed statement
4825 from the governor’s authorized representative, tribal authorized representative or an executive
4826 authorized signature authority,

4827 **C.4.1. ADMINISTRATIVE CLOSEOUT**

4828 If a recipient is unable to meet the standard closeout requirements (e.g., unable to fulfill non-federal
4829 cost share match requirements), the governor’s authorized representative, tribal authorized
4830 representative or an executive authorized signature authority must request an administrative
4831 closeout in writing to the FEMA regional administrator. The letter should identify the reason for the
4832 recipient’s request.

4833 FEMA may initiate an administrative closeout because of the recipient’s failure to perform in
4834 accordance with the terms of the award or submit required final reports within one year of the period
4835 of performance end date. After all reasonable efforts to secure the final reports (both financial and
4836 program) are exhausted, FEMA will initiate an administrative closeout.²³⁶ If FEMA needs to
4837 administratively close an award, it may negatively impact a recipient’s ability to obtain future
4838 funding. This mechanism can also require FEMA to make cash or cost adjustments and ineligible
4839 cost determinations based on the information it has, which may result in identifying a debt owed to
4840 the agency by the recipient.

4841 The administrative closeout process permits FEMA to close an award using available financial and
4842 programmatic information in lieu of final reports. FEMA will initiate an administrative closeout when
4843 a recipient is not responsive to reasonable efforts the agency makes to collect required reports
4844 needed to complete the standard process. FEMA initiates an administrative closeout through formal
4845 correspondence that provides notice of how the agency intends to proceed. If the recipient submits
4846 all required documents prior to the completion of the administrative closeout process, FEMA may
4847 use those documents to conduct a standard closeout.

4848 FEMA’s decision to enforce an administrative closeout may result in additional enforcement actions,
4849 including disallowance of costs or enhanced oversight of other current awards to the same recipient.

²³⁶ [2 CFR § 200.344\(h\) and \(i\)](#)

4850 FEMA must report the recipient or subrecipient’s material failure to comply with the terms and
 4851 conditions of the award with the OMB-designated integrity and performance system (currently
 4852 FAPIIS).²³⁷ Failure to comply with such reporting requirements may be considered in FEMA’s
 4853 oversight of other current and future awards to the same recipient, including in the agency’s pre-
 4854 award review of a recipient’s risk for noncompliance.²³⁸ FEMA staff may impose remedies for
 4855 noncompliance for the recipient’s other awards.²³⁹ Remedies can include but are not limited to
 4856 placing special conditions on future awards, enhanced monitoring, or both.

4857 **C.4.2. RECIPIENT RECORDS RETENTION**

4858 The recipient must maintain the complete federal award closeout records file for at least three years
 4859 from the submission date of its final expenditure report.²⁴⁰ The records retention period may be
 4860 longer because of an audit or litigation, equipment or real property being used beyond the period of
 4861 performance, or other circumstances.²⁴¹ FEMA recommends that recipients remind subrecipients of
 4862 the three-year records retention requirement and communicate the submission date of the final
 4863 expenditure reports to the agency.

4864 FEMA retains the right to disallow costs and recover assistance based on a later audit or other
 4865 review after closeout. FEMA must make any cost disallowance determination and notify the pass-
 4866 through entity within the records retention period.

4867 **C.4.3. UPDATE OF REPETITIVE LOSS DATABASE**

4868 FEMA will update the NFIP Repetitive Loss Database as project activities are completed. For
 4869 acquisition and demolition or relocation projects, recipients must provide an update when there is no
 4870 longer an insurable structure on the property. For elevation, reconstruction, floodproofing and
 4871 localized flood risk reduction projects, recipients must provide an update when the approved activity
 4872 is complete or otherwise effective.

4873 The NFIP defines a repetitive loss structure as any insurable building for which the NFIP paid two or
 4874 more claims of more than \$1,000 within any rolling 10-year period since 1978. At least two of the
 4875 claims must be more than 10 calendar days apart but within 10 years of each other. The NFIP may
 4876 or may not currently insure a repetitive loss structure.

4877 The NFIP definition of a repetitive loss structure described in this section is different from the FMA
 4878 definition following the passage of the [Biggert-Waters Flood Insurance Reform Act of 2012](#).²⁴² See
 4879 [Part 10](#), section D for more information.

²³⁷ [2 CFR § 200.344\(i\)](#)

²³⁸ [2 CFR § 200.206](#)

²³⁹ [2 CFR § 200.339](#), [2 CFR § 200.206](#)

²⁴⁰ [2 CFR §§ 200.334-337](#)

²⁴¹ [2 CFR § 200.344](#)

²⁴² Public Law 112-141 (July 6, 2012); Section 100205

4880 **D. Identification and Collection of Monies Owed**

4881 FEMA has a responsibility to recover from the recipient any assistance inappropriately paid for
 4882 disallowed costs under its grant awards. This recovery may result from overestimates or underruns
 4883 on approved costs or from identifying amounts paid for costs that were unallowable because of
 4884 ineligibility, unreasonable costs or other reasons. Funds owed to FEMA also include monies
 4885 generated under the award or for income associated with the sale, lease or loan of federal property.
 4886 FEMA may identify and collect monies owed under a grant award at any time during the lifecycle of
 4887 an award, not just as a result of closeout.²⁴³ If the administering office cannot resolve amounts owed
 4888 under routine administrative processes, it must refer the matter to the FEMA Finance Center to
 4889 pursue debt collection. When necessary, the FEMA Finance Center refers debt to the U.S.
 4890 Department of Treasury for collection purposes.

4891 **E. Supplies and Equipment**

4892 In general, title to supplies and equipment that the non-federal entity purchases with FEMA
 4893 assistance vests in the non-federal entity. The non-federal entity must use the supplies or equipment
 4894 for the authorized program or activity purpose as long as is needed and in accordance with [2 CFR §](#)
 4895 [200.313](#) and [2 CFR § 200.314](#).

4896 **F. Disposition of Purchased Equipment and Supplies**

4897 This section describes disposition requirements when purchased equipment or supplies (including
 4898 materials) are no longer needed for federally funded activities. In the context of disposition,
 4899 equipment is any tangible personal property (including information technology systems) having a
 4900 useful life of more than one year and a per-unit acquisition cost that equals or exceeds the lesser of
 4901 the capitalization level established by the non-federal entity for financial statement purposes, or
 4902 \$5,000.²⁴⁴ Tangible personal property that does not fall under this definition of equipment is a
 4903 supply.²⁴⁵ When equipment or supplies (including materials) purchased with HMA are no longer
 4904 needed for HMA activities, the non-federal entity may use the items for other federally funded
 4905 programs or activities, provided the recipient informs FEMA.²⁴⁶

4906 **F.1. Disposition of Purchased Equipment**

4907 In accordance with federal regulations, state, local, tribal and territorial non-federal entities must
 4908 dispose of equipment in accordance with state, local, tribal and territorial government laws and
 4909 procedures.²⁴⁷ All other non-federal entities must follow the requirements of [2 CFR § 200.313](#).

²⁴³ For information on how to make a payment to FEMA, see the [“How to Pay FEMA”](#) webpage.

²⁴⁴ [2 CFR § 200.1](#)

²⁴⁵ [2 CFR § 200.1](#)

²⁴⁶ [2 CFR § 200.313\(c\)](#)

²⁴⁷ [2 CFR § 200.313\(b\)](#)

4910 When equipment purchased with HMA is no longer needed for mitigation activities, tribal and local
 4911 governments and private nonprofit (PNP) organizations may use the items for other federally funded
 4912 programs or activities.²⁴⁸

4913 When an individual item of equipment is no longer needed for federally assisted programs or
 4914 activities, tribal and local governments and PNP organizations must calculate the current fair market
 4915 value of each item of equipment. The recipient/subrecipient must provide the current fair market
 4916 value for any item with a current fair market value of \$5,000 or more. FEMA reduces eligible
 4917 assistance by this amount.²⁴⁹ If an individual item of equipment has a current fair market value of
 4918 less than \$5,000, FEMA does not reduce the eligible assistance.²⁵⁰ Tribal and local government and
 4919 PNP organizations must comply with all disposition requirements in [2 CFR § 200.313\(e\)](#).

4920 **F.2. Disposition of Purchased Supplies**

4921 When supplies are no longer needed for federally assisted programs or activities, all non-federal
 4922 entities, including state and tribal governments, must calculate the current fair market value of any
 4923 unused residual supplies (including materials) that FEMA assisted with for any of its activities and
 4924 determine the aggregate total. The non-federal entity must provide the current fair market value if
 4925 the aggregate total of unused residual supplies is greater than \$5,000. FEMA reduces eligible
 4926 assistance by this amount.²⁵¹ If the aggregate total of unused residual supplies is less than \$5,000,
 4927 FEMA does not reduce the eligible assistance.

4928 **G. Disposition of Real Property**

4929 If a non-federal entity acquires or improves real property with assistance from an HMA program, the
 4930 non-federal entity must follow the disposition and reporting requirements when the acquired or
 4931 improved real property is no longer needed for the originally authorized purpose.²⁵² Real property is
 4932 broadly defined to include land, land improvements, structures and any attachments to the land or
 4933 structures.²⁵³ Structural hazard mitigation measures applied to land or structures generally
 4934 constitute improvements to real property.

4935 **G.1. Disposition Requirements by Project Type**

4936 The real property reporting and disposition standards apply to the following types of HMA projects,
 4937 for the useful life of the real property, that the non-federal entity acquires or improves:

²⁴⁸ [2 CFR § 200.313\(c\)](#)

²⁴⁹ [2 CFR § 200.313\(e\)\(2\)](#)

²⁵⁰ [2 CFR § 200.313\(e\)\(1\)](#)

²⁵¹ [2 CFR § 200.314\(a\)](#)

²⁵² [2 CFR § 200.311](#), [2 CFR § 200.329](#)

²⁵³ [2 CFR § 200.1](#)

- 4938 ▪ **Community safe rooms and tsunami vertical evacuation refuge:** The retrofit of an existing
4939 facility or construction of a new community safe room or tsunami vertical evacuation refuge,
4940 which are intended to protect a specific population, are considered improvements to real
4941 property.

- 4942 ▪ **Property acquisition:** To acquire property to be dedicated and used in perpetuity for open
4943 space for the conservation of natural floodplain functions. Because the non-federal entity
4944 acquires title to the property, the non-federal entity must comply with the property standards
4945 and reporting requirements. To the extent that FEMA’s regulations for property acquisition
4946 and relocation for open space in [44 CFR part 80](#) differ from the disposition and reporting
4947 requirements in [2 CFR § 200.311](#) and [2 CFR § 200.330](#), FEMA’s regulations at [44 CFR part](#)
4948 [80](#) govern.

- 4949 ▪ **Other mitigation measures:** Mitigation reconstruction, structure elevations, flood risk
4950 reduction measures, nonresidential building floodproofing and retrofitting are considered
4951 improvements to real property.

4952 G.2. Exceptions

4953 The real property reporting and disposition standards do not apply to the following types of HMA
4954 projects:

- 4955 ▪ **Residential safe rooms:** Individuals are not subject to the requirements of [2 CFR part 200](#);
4956 therefore, the disposition and reporting requirements do not apply to safe rooms meant for
4957 individuals or families (e.g., safe rooms installed in single-family dwellings).

- 4958 ▪ **Wildfire mitigation:** The property standards will not typically apply to wildfire mitigation
4959 projects that do not improve real property.

- 4960 ▪ **Warning systems:** The property standards will not typically apply to warning system projects.

4961 H. Audits

4962 Recipients and subrecipients are subject to federal and non-federal audits.²⁵⁴ Records are subject to
4963 audits by state or territorial auditors, FEMA, the U.S. Department of Homeland Security (DHS) Office
4964 of Inspector General (OIG) and the U.S. Government Accountability Office (GAO).²⁵⁵ FEMA may adjust
4965 activity assistance as the result of audit findings.

²⁵⁴ [2 CFR § 200.501](#)

²⁵⁵ [44 CFR § 206.16](#)

4966 **H.1. Single Audits**

4967 A recipient or subrecipient that expends \$750,000 or more from all federal funding sources during
4968 their fiscal year is required to submit an organization-wide financial and compliance audit report,
4969 also known as a single audit report.²⁵⁶

4970 Recipients must comply with procedures for compliance with audit requirements of the GAO's
4971 [government auditing standards codified in the Yellow Book](#),²⁵⁷ [2 CFR part 200, subpart F](#) and all
4972 other applicable statutes and regulations.

4973 For single audits of recipients, a FEMA project officer will be assigned to follow up on audit findings
4974 and issue management decisions for associated corrective actions. For single audits of
4975 subrecipients, the recipient must follow up on audit findings and issue management decisions for
4976 associated corrective actions.

4977 For single audits, the auditee is required to prepare financial statements reflecting their financial
4978 position, a schedule of federal award expenditures and a summary of the status of prior audit
4979 findings and questioned costs. The auditee must also follow up and take appropriate corrective
4980 actions on new and previously issued but not yet addressed audit findings.²⁵⁸ The auditee must
4981 prepare a corrective action plan according to [2 CFR § 200.1](#) and [2 CFR § 200.511](#).

4982 **H.2. Government Accountability Office**

4983 The GAO is the investigatory arm of Congress and is under the direction of the Comptroller General of
4984 the U.S. The GAO is an independent, nonpartisan agency that investigates how the federal
4985 government spends taxpayer dollars. Its mission is to help improve the performance and
4986 accountability of the federal government.

4987 **H.3. Office of the Inspector General**

4988 The DHS OIG conducts independent audits and investigations on FEMA programs, operations,
4989 activities and functions as well as recipient and subrecipient expenditures of federal assistance. The
4990 OIG evaluates activities to identify, deter and address fraud, waste and abuse. The OIG also provides
4991 oversight of nonfederal audits such as single audits. The OIG has the authority to audit any activity
4992 funded with HMA.

²⁵⁶ [2 CFR § 200.501](#), [44 CFR § 206.438\(e\)](#)

²⁵⁷ The Yellow Book is used by auditors of government entities, entities that receive government awards and other audit organizations. The Yellow Book is available on GAO's website at: <https://www.gao.gov/yellowbook>

²⁵⁸ [2 CFR § 200.508](#), [2 CFR § 200.510](#), [2 CFR § 200.511](#)

4993 **H.4. Recovery of Improper Payments**

4994 FEMA conducts audit assessments on high-dollar drawdowns to recover payments identified as
 4995 improper as required by the Payment Integrity Information Act of 2019.²⁵⁹

4996 Award-specific activities include requesting that recipients provide supporting documentation for
 4997 specific payment requests made on specific dates. Recipient participation in the review is required
 4998 under the terms and conditions of the grant agreement.

4999 FEMA will initiate recoupment when it identifies noncompliance and when the matter cannot be
 5000 corrected, an amount is potentially owed and funds have been drawn down (see subsections [B.2.](#)
 5001 [Improper Payment](#) and [D. Identification and Collection of Monies Owed](#)). FEMA will process a
 5002 deobligation after the recipient has reimbursed the amount of the improper payment.

5003 **I. Forms**

5004 FEMA maintains multiple forms that OMB must review and approve. FEMA generally reviews
 5005 information collections every three years or earlier if program statutes or regulations required
 5006 updates. The guidance references approved forms at the time of publication. Any updates to forms
 5007 will be published on FEMA.gov.

5008 Recipients seeking to use different forms than provided by FEMA must gain prior agency approval.
 5009 Recipients must include forms in their FEMA-approved HMGP Administrative Plan. Plans can be
 5010 submitted at any time and can be updated to include BRIC and FMA grants management activities.

5011 **J. Additional Award Administration and Requirements**
 5012 **Resources**

5013 **Table 10: Closeout Toolkit: Checklist for Hazard Mitigation Assistance Subawards**

Minimum Requirement	Comments and Documentation Source
General for Mitigation Activities	
Was an exception to the plan requirement granted for this project under extraordinary circumstances? If yes, was the plan completed, approved by FEMA including adoption by the jurisdiction within 12 months as required?	

²⁵⁹ Public Law 116-117 (March 2, 2020)

Minimum Requirement	Comments and Documentation Source
Was the activity completed within the award’s established period of performance?	
Were there approved requests for period of performance extensions?	
Were costs incurred after the period of performance expired?	
Was a duplication of benefits search completed to ensure the subrecipient did not receive federal assistance for the same purpose from another source (e.g., Increased Cost of Compliance, Individual Assistance) (excluding nonconstruction subawards)?	
Was a duplication of programs search completed to verify the subrecipient did not receive federal assistance for the same purpose from another source (e.g., previous HMGP, HMGP Post Fire, BRIC or FMA grants; NFIP; Public Assistance; or other federal agencies) (excluding nonconstruction activities identified in Part 11)?	
Was the final Quarterly Progress Report submitted with the closeout request?	
Did the recipient perform a site inspection visit of the completed project and provide a copy of the site inspection report with the closeout request (excluding nonconstruction activities identified in Part 11)?	

Minimum Requirement	Comments and Documentation Source
<p>Did the recipient provide photographs of the completed project to compare with the premitigation photos (excluding nonconstruction activities identified in Part 11)?</p> <p>Photos must be clearly labeled with the FEMA project number, subrecipient name and address, and latitude/longitude (to the nearest sixth decimal place).</p>	
<p>Did the governor’s authorized representative, tribal authorized representative or an executive authorized signature authority certify that reported costs were incurred in the performance of eligible work, that the approved work was completed, and that the mitigation measure is in compliance with the provisions of the FEMA-State Agreement/FEMA-Tribal Agreement?</p>	
<p>Were special EHP compliance conditions identified as part of the approved scope of work?</p> <p>If yes, did the recipient document in the closeout package that the project was completed in compliance with all EHP conditions identified in the approval letter/attachments and/or the electronic application system?</p>	
<p>Did the recipient certify that the entire project was completed in accordance with all required permits and building codes and standards (if applicable)?</p>	
<p>Did the recipient provide the latitude and longitude to the nearest sixth decimal place for each project site (e.g., for each property, segment or location) (excluding nonconstruction activities identified in Part 11)?</p>	

Minimum Requirement	Comments and Documentation Source
<p>Are there insurable structures remaining in the Special Flood Hazard Area after project completion?</p> <p>If yes, did the recipient provide proof of insurance?</p>	
Cost Review	
<p>Were the final expenditures reported consistent with the approved costs?</p>	
<p>Did the actual reimbursements match the reported sum of expenditures?</p>	
<p>Has the recipient met the cost share requirement?</p>	
<p>Were in-kind third-party contributions identified under the subaward?</p> <p>If yes, did the subrecipient obtain prior approval?</p>	
<p>If additional costs were incurred, was prior approval obtained?</p>	
<p>Was expendable and nonexpendable equipment purchased or federally owned equipment furnished?</p> <p>If yes, FEMA Form 20-18, <i>Report on Government Property</i> must be provided.</p>	
<p>Was program income generated under the project?</p> <p>If yes, did the recipient deduct program income from the total project costs?</p>	
<p>Was interest earned on federal advance payments?</p> <p>If yes, was interest returned to the U.S. Department of Treasury according to the applicable regulation for the disaster?</p>	
<p>Additional closeout requirements for each mitigation activity/project type can be found in Part 11 and Part 12.</p>	

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Award Monitoring and Closeout Resources

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- SF-428: *Tangible Personal Property Report*

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<https://www.grants.gov/web/grants/forms/post-award-reporting-forms.html>

5018

- Closeout Toolkit: Checklist for Hazard Mitigation Grant Program Subawards

5019

[https://www.fema.gov/sites/default/files/2020-](https://www.fema.gov/sites/default/files/2020-09/fema_closeout_toolkit_checklist_hazard_mitigation_grant_program_subawards_02-19-15.pdf)

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[09/fema_closeout_toolkit_checklist_hazard_mitigation_grant_program_subawards_02-](https://www.fema.gov/sites/default/files/2020-09/fema_closeout_toolkit_checklist_hazard_mitigation_grant_program_subawards_02-19-15.pdf)

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[19-15.pdf](https://www.fema.gov/sites/default/files/2020-09/fema_closeout_toolkit_checklist_hazard_mitigation_grant_program_subawards_02-19-15.pdf)

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- Closeout Toolkit: Hazard Mitigation Grant Program Subaward Closeout FAQs

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[https://www.fema.gov/sites/default/files/documents/fema_closeout-toolkit-hazard-](https://www.fema.gov/sites/default/files/documents/fema_closeout-toolkit-hazard-mitigation-grant-program-subaward-closeout-faqs.pdf)

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[mitigation-grant-program-subaward-closeout-faqs.pdf](https://www.fema.gov/sites/default/files/documents/fema_closeout-toolkit-hazard-mitigation-grant-program-subaward-closeout-faqs.pdf)

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Part 10. Program-Specific Guidance

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This part provides additional information applicable to assistance available under each Hazard Mitigation Assistance (HMA) program: Hazard Mitigation Grant Program (HMGP), Hazard Mitigation Grant Program Post Fire (HMGP Post Fire), Building Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance (FMA). This section supplements the grant application and management information provided in Part 1 through Part 9 and the unique activity type guidance in [Part 11](#), [Part 12](#) and [Part 13](#). This part does not provide all necessary information to apply for assistance through the HMA programs and must be read in conjunction with other relevant sections of the guidance.

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A. Hazard Mitigation Grant Program

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This section contains supplemental guidance specific to HMGP and outlines the information necessary for both the applicant and subapplicant to apply for and manage HMGP awards.

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A.1. HMGP: Request for Assistance

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HMGP is authorized through a major disaster declaration. A governor,²⁶⁰ tribal chief executive, or equivalent, may request that HMGP assistance be available throughout the state, local, tribal or territorial area or only in specific jurisdictions. Federally recognized tribes, through their tribal chief executive,²⁶¹ may also submit a request for a disaster declaration within their impacted areas and request that HMGP funding be made available to them under that declaration. For more information about the declaration process and authorization of HMGP, see [44 Code of Federal Regulations \(CFR\) §§ 206.31-49b](#), visit the Federal Emergency Management Agency (FEMA) [“How a Disaster Gets Declared” webpage](#) or seek assistance from the appropriate FEMA regional office.

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The governor’s authorized representative or tribal authorized representative serves as the grant administrator for all assistance provided under HMGP.²⁶² The governor’s authorized representative, tribal authorized representative or an executive authorized signature authority’s responsibilities include providing technical advice and assistance to eligible subapplicants and/or subrecipients and ensuring all potential subapplicants are aware of available assistance for the submission of all documents necessary for the award.

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A signed FEMA-State Agreement or FEMA-Tribal Agreement is required to carry out HMGP under a disaster declaration. After execution of the agreement, the applicant becomes the recipient.

²⁶⁰ [42 United States Code \(U.S.C.\) § 5122\(5\)](#)

²⁶¹ [42 U.S.C. § 5122\(12\)](#)

²⁶² [44 CFR § 206.436\(b\)](#)

5054 **A.2. HMGP: Administrative Plan**

5055 The HMGP Administrative Plan (Administrative Plan) is a procedural guide that details how the
 5056 recipient will administer HMGP awards and subawards. Recipients must have a current
 5057 Administrative Plan approved by FEMA before receiving HMGP assistance. The Administrative Plan
 5058 may become an annex or chapter of the state’s or tribe’s overall emergency response and operations
 5059 plan or comprehensive mitigation program strategy. At a minimum, the Administrative Plan must:

- 5060 ▪ Designate the agency that will act as recipient.
- 5061 ▪ Identify the applicant’s hazard mitigation officer or designated representative.
- 5062 ▪ Identify staffing requirements and resources, including a procedure for expanding staff
 5063 temporarily following a disaster, if necessary.
- 5064 ▪ Establish procedures to guide implementation activities, including recipient management
 5065 costs and distribution of subrecipient management costs.
- 5066 ▪ Establish procedures for monitoring and reporting on subrecipient management costs.
- 5067 ▪ Comply with any other requirements outlined in [44 CFR § 206.437](#).

5068 Recipients must complete the [HMGP Administrative Plan Checklist](#) and submit for FEMA’s review as
 5069 part of the review of the plan.

5070 **A.2.1. HMGP: ADMINISTRATIVE PLAN DESIGNATION OF RECIPIENT AND HAZARD** 5071 **MITIGATION OFFICER**

5072 Typically, the agency designated to act as the recipient (i.e., state, tribe or territory) manages the
 5073 responsibilities for federal and state/tribal/territorial disaster assistance and is responsible for
 5074 meeting the mitigation planning requirement. Although a single agency may administer the
 5075 assistance, the governor may establish an interagency mitigation team to manage the
 5076 state/tribal/territorial mitigation program.

5077 The recipient’s hazard mitigation officer, or designated representative, is typically responsible for
 5078 managing the recipient’s mitigation program, coordinating the mitigation team and developing and
 5079 implementing the hazard mitigation plan. The recipient’s hazard mitigation officer must also make
 5080 funds available for planning and provide assistance and training to local governments applying for
 5081 funds and developing mitigation plans.²⁶³ Recipients often rely on staff from the emergency
 5082 management agency or other state or tribal agencies to be the hazard mitigation officer’s staff
 5083 following a disaster.

²⁶³ [44 CFR § 201.3](#)

5084 **A.2.2. HMGP: ADMINISTRATIVE PLAN STAFFING REQUIREMENTS AND THE MITIGATION**
 5085 **TEAM**

5086 The Administrative Plan should identify the positions and the minimum number of personnel needed
 5087 to implement HMGP. Key positions may include clerical, administrative and financial managers;
 5088 grants managers; engineers and/or architects; and mitigation, community and environmental
 5089 planners. These positions support mitigation planning and administration and the implementation of
 5090 mitigation activities. However, the staff organizational structure should remain flexible as it may be
 5091 augmented as needed with emergency management agency staff, staff from other agencies or
 5092 temporary staff or contractors hired to administer HMGP effectively. The hazard mitigation officer
 5093 should build capacity and resilience by using both community and mitigation planners. The
 5094 Administrative Plan should include a procedure for expanding staff resources and using HMGP
 5095 management costs.

5096 The mitigation team may include representatives of agencies involved with emergency management,
 5097 natural resources, floodplain management, environmental issues, historic preservation and
 5098 archaeology, soil conservation, transportation, planning and zoning, housing and economic
 5099 development, building regulations, infrastructure regulations or construction, public information,
 5100 insurance, regional and local government, academia, businesses and nonprofit organizations. With
 5101 the varied backgrounds and specialized expertise of members, the team creates interagency,
 5102 interdisciplinary insight regarding risks and potential solutions. The interagency aspect of the team
 5103 can diffuse political pressure on the recipient agency and increase the availability of resources.

5104 The mitigation team may support the recipient agency by:

- 5105 ▪ Developing a comprehensive mitigation implementation strategy based on the
5106 FEMA-approved mitigation plan.
- 5107 ▪ Supporting development and implementation of state, local, tribal and territorial mitigation
5108 plans.
- 5109 ▪ Communicating with local governments regarding mitigation priorities found in mitigation
5110 plans and updates based on the disaster activity.
- 5111 ▪ Coordinating with community planning and capacity-building, recovery planning, HMGP and
5112 Public Assistance mitigation.
- 5113 ▪ Building public and business/industry support for mitigation initiatives.
- 5114 ▪ Reviewing, assigning priority and recommending mitigation actions for implementation.
- 5115 ▪ Seeking assistance for implementation of mitigation measures using a wide range of public
5116 and private resources in accordance with the National Mitigation Investment Strategy.

5117 **A.2.3. HMGP: ADMINISTRATIVE PLAN PROCEDURES TO GUIDE IMPLEMENTATION**
 5118 **ACTIVITIES**

5119 The Administrative Plan must establish procedures to:

- 5120 ▪ Identify and notify potential subapplicants of the availability of HMGP assistance.
- 5121 ▪ Provide potential subapplicants with information on the application process, management
 5122 costs, program eligibility and deadlines.
- 5123 ▪ Determine subapplicant eligibility.
- 5124 ▪ Provide information, training and technical assistance on mitigation planning requirements.
- 5125 ▪ Provide information for environmental and historic preservation (EHP) and floodplain
 5126 management reviews in conformance with [FEMA Directive 108-1: Environmental Planning](#)
 5127 *and Historic Preservation Responsibilities and Program Requirements* (October 10, 2018).
- 5128 ▪ Process requests for advances of assistance and reimbursements.
- 5129 ▪ Monitor and evaluate the progress and completion of mitigation activities.
- 5130 ▪ Monitor subrecipient management costs.
- 5131 ▪ Review and approve cost overruns.
- 5132 ▪ Process appeals.
- 5133 ▪ Provide technical assistance as required to subrecipients.
- 5134 ▪ Comply with the administrative requirements of [44 CFR § 206.437](#) and [2 CFR part 200](#).
- 5135 ▪ Comply with audit requirements of [2 CFR part 200, subpart F](#).
- 5136 ▪ Provide Quarterly Progress Reports to FEMA on mitigation activities.

5137 **A.2.4. HMGP: ADMINISTRATIVE PLAN SUBMISSION AND APPROVAL DEADLINE**

5138 A recipient may forward a new or updated Administrative Plan to FEMA for approval at any time. A
 5139 recipient should review and update their plan annually and must review and update the plan
 5140 following a major disaster declaration if required to meet current policy guidance or changes to the
 5141 administration of the program. If a review indicates there will be no changes to the current
 5142 Administrative Plan, the recipient should notify FEMA within 90 calendar days of the major disaster
 5143 declaration.

5144 **A.3. HMGP: Eligibility**

5145 See [Part 4](#) for details regarding HMGP eligible applicants, eligible subapplicants and eligible
5146 activities.

5147 As described in [Part 4](#), private nonprofit (PNP) organizations may act as the subapplicant for HMGP if
5148 they own or operate a private nonprofit facility.²⁶⁴ A qualified conservation organization as defined in
5149 [44 CFR § 80.3\(i\)](#), is the only PNP organization (that does not own or operate a nonprofit facility) that
5150 is eligible to apply for acquisition or relocations for open space projects.²⁶⁵

5151 **A.4. HMGP: Assistance Estimates**

5152 The amount of HMGP funding available to the applicant is based on the estimated total federal
5153 assistance, subject to the sliding scale formula that FEMA provides for disaster recovery for each
5154 disaster declaration.²⁶⁶

5155 FEMA will determine the assistance it will make available for HMGP by a “lock-in,” which will act as a
5156 ceiling for assistance available to a recipient, including its subrecipients. The level of HMGP
5157 assistance available for a given disaster is based on a percentage of the estimated total federal
5158 assistance under the Robert T. Stafford Disaster Relief and Emergency Assistance Act ([Stafford
5159 Act](#)),²⁶⁷ excluding administrative costs for each major disaster declaration.²⁶⁸

5160 FEMA will provide an initial 30-day estimate within 35 calendar days of the major disaster
5161 declaration or soon thereafter, in conjunction with calculation of the preliminary amount(s) for
5162 management costs. FEMA will provide a revised estimate approximately six months after the major
5163 disaster declaration.

5164 FEMA will establish the HMGP assistance ceiling for each disaster 12 months after the major
5165 disaster declaration. This amount, also known as the lock-in value for HMGP, is the maximum FEMA
5166 can obligate for eligible HMGP activities. The Office of the Chief Financial Officer (OCFO) will continue
5167 to provide HMGP estimates before 12 months; however, these estimates will not represent a
5168 minimum or floor amount.

5169 Prior to 12 months, total obligations are limited to no more than 75 percent of any current estimate.
5170 Any obligations above 75 percent of the current estimate prior to 12 months will require
5171 concurrence from the FEMA regional administrator (or federal coordination officer with disaster
5172 recovery manager authority) and the FEMA OCFO.

²⁶⁴ [44 CFR § 206.434](#)

²⁶⁵ [44 CFR § 206.434\(a\)\(2\)](#)

²⁶⁶ [44 CFR § 206.432\(b\)](#)

²⁶⁷ Public Law 100-707 (November 23, 1988); amending the Disaster Relief Act of 1974, Public Law 93-288 (May 22, 1974)

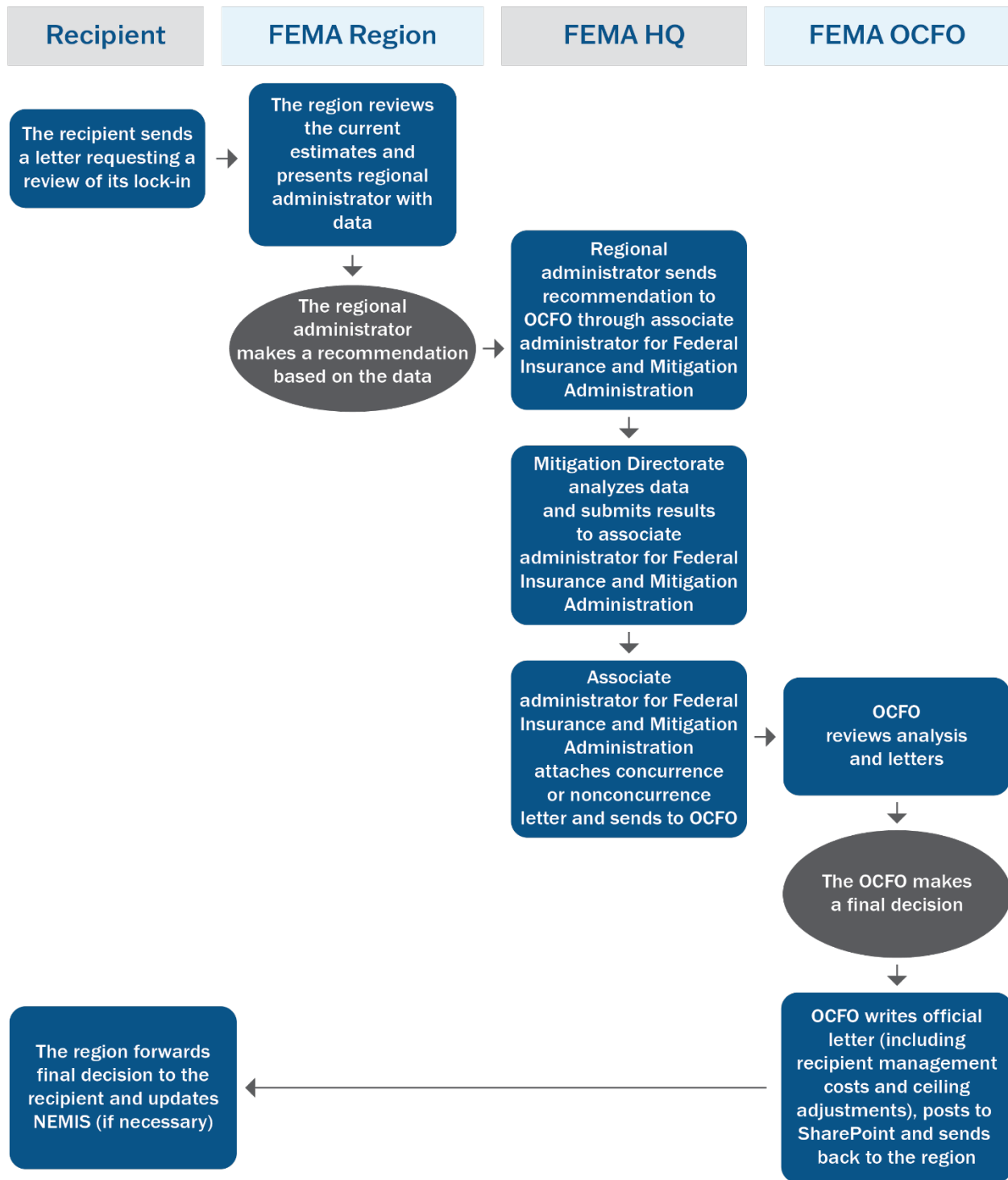
²⁶⁸ [44 CFR § 206.432\(b\)](#)

5173 In circumstances when a major disaster declaration has resulted in significant fluctuations of
5174 projected or actual disaster costs, FEMA, at the request of the recipient, may conduct an additional
5175 review after the 12-month lock-in. The recipient must justify in writing to the FEMA regional
5176 administrator any requests to change the amount of the lock-in or perform subsequent reviews. The
5177 regional administrator will recommend to the OCFO whether to approve the change.

5178 Changes to the lock-in will not be made without the approval of the OCFO. The OCFO may change the
5179 amount of the lock-in if they determine that the projections or actuals used to determine the lock-in
5180 were inaccurate enough that the change to the lock-in would be material, or for other reasons in their
5181 discretion that may reasonably warrant such changes. The OCFO will not make such changes without
5182 consultation with the recipient and the regional administrator.

5183 FEMA cannot reopen the application period after it has closed even if there is an increase to the
5184 ceiling amount. Any assistance for mitigation activities approved and obligated before the 12-month
5185 lock-in will not be deobligated when the lock-in is less than the previous estimate. [Figure 7](#) outlines
5186 the HMGP ceiling review process. For more information on extension requests, see [Part 6](#).

HMGP Ceiling Review Process (after 12-month initial lock-in)



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5188

Figure 7. HMGP Ceiling Review Process

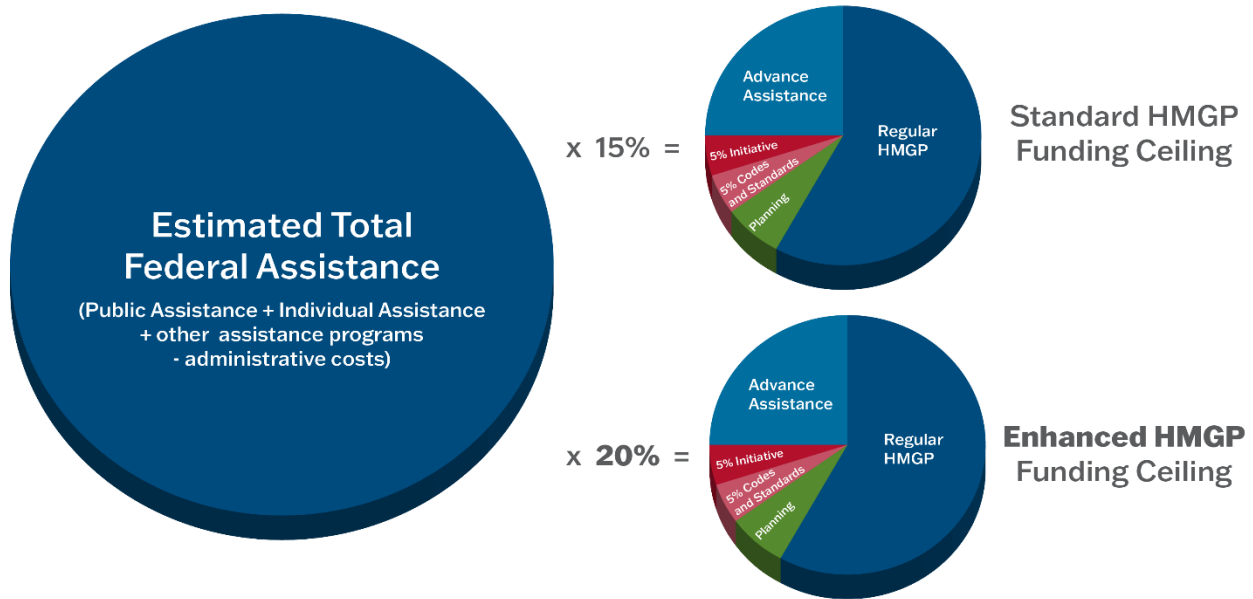
5189 **A.5. HMGP: Assistance Sliding Scale**

5190 The maximum amount of HMGP assistance available is calculated using a sliding scale formula
 5191 based on a percentage of the estimated total federal assistance under the Stafford Act, excluding
 5192 administrative costs for each major disaster declaration.

5193 Applicants with a FEMA-approved state or tribal mitigation plan may receive:

- 5194 ▪ Up to 15 percent of the first \$2 billion of the estimated aggregate amount of disaster
 5195 assistance.
- 5196 ▪ Up to 10 percent for the next portion of the estimated aggregate amount more than \$2
 5197 billion and up to \$10 billion.
- 5198 ▪ Up to 7.5 percent for the next portion of the estimated aggregate amount more than \$10
 5199 billion and up to \$35.333 billion.

5200 Applicants with a FEMA-approved state or tribal enhanced mitigation plan are eligible for HMGP
 5201 assistance not to exceed 20 percent of the estimated total federal assistance under the Stafford Act,
 5202 up to \$35.333 billion of such assistance, excluding administrative costs authorized for the disaster.
 5203 [Figure 8](#) highlights how the HMGP funding ceiling is generally calculated.



5204

5205 **Figure 8. Standard Versus Enhanced Mitigation Plans Under HMGP**

5206 **A.6. HMGP: Apportionment**

5207 The amount of HMGP assistance available under the disaster declaration will be apportioned among
 5208 the applicants if there is more than one applicant. For example, if a state and a federally recognized
 5209 tribe are applicants under the same disaster declaration, then the available HMGP assistance will be

5210 apportioned among the state and the federally recognized tribe. The apportionment is based on the
5211 damages the tribe sustained on tribal land from the disaster.

5212 **A.7. HMGP: Timing of Obligation of Assistance**

5213 HMA funds may be obligated for subawards submitted during the open application period and, in
5214 limited circumstances, when the application period is closed and the period of performance is open
5215 for cost overruns, budget changes, some project modifications or schedule changes. HMA funds
5216 must not, however, be obligated to fund new projects or scope expansions of the original projects
5217 that may result in a new project. HMGP funds cannot be obligated for mitigation activities after the
5218 application period and the period of performance have closed (i.e., during closeout and after
5219 closeout of the award).

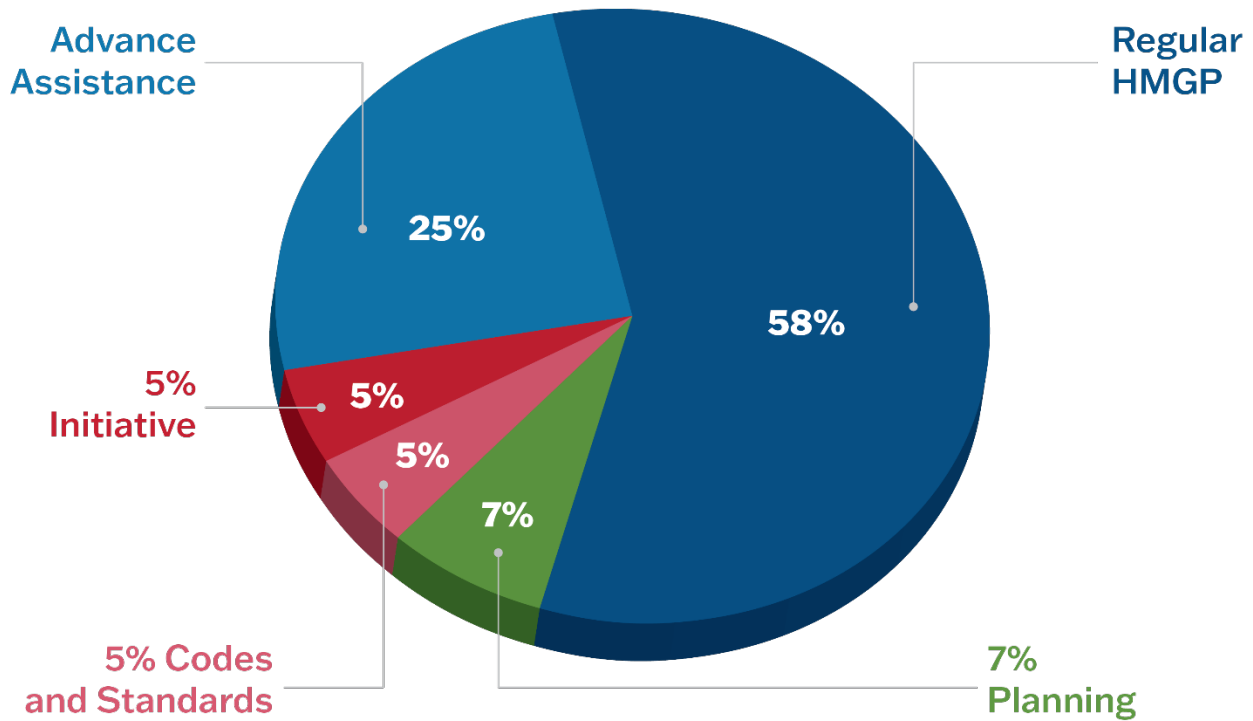
5220 **A.8. HMGP: Assistance Restrictions**

5221 Assistance restrictions are caps or restrictions on the amount of assistance that applicants may use
5222 for specific activities under the HMGP ceiling amount. HMGP assistance restrictions include the
5223 following:

- 5224 ▪ **Advance assistance:** Advance assistance (known as project scoping for BRIC and FMA) is
5225 authorized by section 404(e) of the Stafford Act,²⁶⁹ which allows advancing up to 25 percent
5226 of the HMGP ceiling or \$10 million, whichever is less. For more detail, see [Part 11, B. Project](#)
5227 [Scoping/Advance Assistance](#).
- 5228 ▪ **5 Percent Initiative:** Up to five percent of the recipient's HMGP ceiling may be used for
5229 mitigation measures that are difficult to evaluate against traditional program cost-
5230 effectiveness. For more detail, see subsection [A.8.1. HMGP: The 5 Percent Initiative](#).
- 5231 ▪ **7 percent planning:** Up to seven percent of the recipient's HMGP ceiling may be used for
5232 mitigation planning activities in compliance with [44 CFR § 201.3\(c\)\(4\)](#). For more detail, see
5233 [Part 11, Part 11.A.3.1.4.1. HMGP and HMGP Post Fire 7 Percent Planning Funding](#).
- 5234 ▪ **5 Percent Codes and Standards:** Up to five percent of the recipient's HMGP ceiling may be
5235 used for codes and standards mitigation activities. For more detail, see [Part 11, Part](#)
5236 [11.E.2.6.1 HMGP and HMGP Post Fire Assistance Funding Restrictions for Codes and](#)
5237 [Standards](#).

5238 [Figure 9](#) highlights how HMGP is broken down.

²⁶⁹ [42 U.S.C. § 5170c](#)



Any 7%, 5% or 25% amounts not obligated under their categories revert back to regular HMGP funds.

Figure 9. HMGP Funding Breakdown

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A.8.1. HMGP: THE 5 PERCENT INITIATIVE

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5242 Some mitigation activities are difficult to evaluate using FEMA-approved cost-effectiveness
 5243 methodologies. Up to five percent of the recipient’s HMGP ceiling may be set aside by the recipient
 5244 to pay for such activities. The 5 Percent Initiative funds cannot be used in situations where mitigation
 5245 activities can be evaluated under FEMA-approved cost-effectiveness methods but do not meet the
 5246 required Benefit-Cost Ratio.

A.8.1.1. HMGP: 5 Percent Initiative Eligibility

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To be eligible for the 5 Percent Initiative, activities must:

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- 5249 ▪ Be difficult to evaluate against traditional program cost-effectiveness criteria.
- 5250 ▪ Comply with all applicable HMGP eligibility criteria as well as with federal, state, and local
 5251 laws and ordinances.
- 5252 ▪ Be consistent with the goals and objectives of the relevant state, tribal or territorial (standard
 5253 or enhanced) mitigation plans and local mitigation plans.
- 5254 ▪ Be submitted for review with a narrative that indicates that there is a reasonable expectation
 5255 that future damage or loss of life or injury will be reduced or prevented by the activity.

5256 Activities that might be eligible under the 5 Percent Initiative include:

- 5257 ▪ The use, evaluation and application of new, unproven mitigation techniques, technologies,
5258 methods, procedures or products.
- 5259 ▪ Purchase of equipment and systems for the purpose of warning citizens of impending
5260 hazards.
- 5261 ▪ Purchase of generators or related equipment, such as generator hookups.
- 5262 ▪ Hazard identification or mapping and related equipment for the implementation of mitigation
5263 activities; however, mapping for the sole purpose of updating a Flood Insurance Rate Map
5264 remains ineligible.
- 5265 ▪ Acquisition of geographic information system software, hardware and data used for
5266 mitigation.
- 5267 ▪ Public awareness or education campaigns about mitigation.
- 5268 ▪ Evaluation of model building codes in support of future adoption and/or implementation.

5269 **A.8.1.2. HMGP: 5 Percent Initiative Closeout**

5270 The recipient will follow the closeout requirements for the mitigation activity that was funded under
5271 the 5 Percent Initiative. For public outreach, hazard identification and hazard mapping activities, the
5272 recipient should provide copies of the deliverables identified in the scope of work, including items
5273 such as printed materials, course videos and presentations.

5274 **A.8.1.3. HMGP: 5 Percent Codes and Standards**

5275 Applicants may apply for up to five percent of the HMGP ceiling amount for codes and standards
5276 activities. The 5 Percent Codes and Standards offers expanded eligibility for a variety of codes and
5277 standards activities. This funding source must be used for codes and standards activities and may
5278 be paired with the 5 Percent Initiative for a total of up to 10 percent of the HMGP ceiling amount.

5279 Applicants may apply for 5 percent of the HMGP ceiling amount for codes and standards activities
5280 under the 5 Percent Initiative, in addition to the 5 Percent Codes and Standards funding mentioned
5281 immediately above. Applicants may use this funding opportunity if the 5 Percent Initiative assistance
5282 is not used for other activities. Codes and standards activities are just one type of eligible activity
5283 under the 5 Percent Initiative; see FEMA’s [“5% Initiative” webpage](#).

5284 **A.9. HMGP: Management Costs**

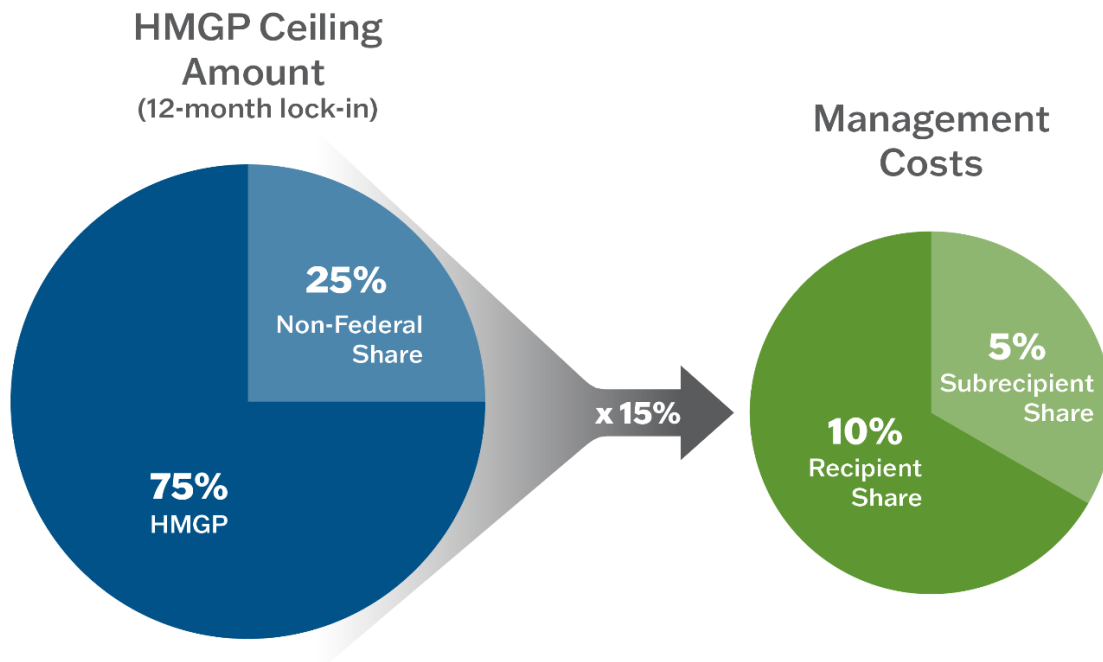
5285 Management costs are indirect costs, direct administrative costs or other administrative expenses
5286 associated with a specific project or mitigation activity. The amounts, allowable uses, and

5287 procedures for HMGP management costs are established in section 324 of the Stafford Act,²⁷⁰ as
 5288 amended by section 1215 of the Disaster Recovery Reform Act (DRRA).²⁷¹ For more information on
 5289 indirect costs, see [Part 13](#).

5290 Management costs are provided outside of, and separate from, the HMGP ceiling amount. The total
 5291 allowable management costs are up to 15 percent, of which up to 10 percent may be used by the
 5292 recipient and up to 5 percent by the subrecipient. The subrecipient cannot request more than five
 5293 percent of the total amount of the grant subaward. FEMA will obligate management cost assistance
 5294 applied for by recipients and subrecipients in accordance with strategic funds management. There is
 5295 no additional cost share requirement for HMGP management costs. For the management cost
 5296 calculation, the “total amount of the HMGP award” means the total amount of contributions based
 5297 on applications submitted when the HMGP application period closes or when the total HMGP ceiling
 5298 is determined, whichever is later. In cases where the recipient submits subapplications in excess of
 5299 the HMGP ceiling, FEMA will only calculate management costs on subapplication amounts up to the
 5300 final HMGP ceiling amount. [Figure 10](#) highlights how HMGP management costs are calculated.

5301 The recipient and subrecipients will be reimbursed for actual management costs incurred. All
 5302 assistance exceeding the incurred costs will be returned to FEMA.

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5305

Figure 10. HMGP Management Costs Breakdown

²⁷⁰ [42 U.S.C. § 5165b](#)

²⁷¹ Public Law 115-254 (October 5, 2018)

5306 FEMA will establish the amount of assistance that it will initially make available for management
5307 costs based on point-in-time HMGP assistance projections. FEMA will provide preliminary
5308 management costs—the 30-day estimate—no sooner than 35 calendar days after the date of the
5309 major disaster declaration. This estimate is developed from the Disaster Projection Report and is
5310 based on the HMGP ceiling amount. FEMA will revise the estimated amount at six months. FEMA will
5311 determine the total management costs estimate 12 months after the date of the major disaster
5312 declaration or after determination of the total HMGP grant award, whichever is later. Additional
5313 information regarding specific management costs activities can be found in [Part 13](#).

5314 Recipients cannot receive an additional five percent for management costs if also acting as a
5315 subrecipient. Management costs cannot be duplicated. However, other state and territorial agencies
5316 (other than the agency designated in the award agreement) who submit subapplications may apply
5317 for subrecipient management costs.

5318 **A.9.1. HMGP: 30-DAY ESTIMATE**

5319 Upon receipt of the initial 30-day management costs estimate, recipients with a FEMA-approved
5320 enhanced mitigation plans and who also have a Program Administration by States (PAS) designation
5321 may apply to FEMA for 35 percent of the estimated amount(s). Other recipients may apply to FEMA
5322 for 25 percent of the estimated amount(s).

5323 **A.9.2. HMGP: SIX-MONTH ESTIMATE**

5324 If the six-month management costs estimate increases beyond the 30-day estimate, and if the
5325 recipient can justify a need for additional management costs before the HMGP ceiling is established,
5326 the recipient may apply for available assistance. A recipient with an enhanced mitigation plan who
5327 also has a PAS designation may apply for 75 percent of the available or remaining recipient
5328 management costs. Other recipients may apply for 50 percent of the available or remaining recipient
5329 management costs.

5330 **A.9.3. HMGP: REQUESTING ADJUSTMENTS**

5331 Recipients may apply to FEMA for an adjustment in available assistance based on the 30-day or six-
5332 month estimates—that is, if they need management costs more than the 30-day (35/25 percent) and
5333 six-month (75/50 percent) percentage estimates. This option is intended for recipients that either do
5334 not have sufficient capacity because of lack of assistance, staffing or other necessary expertise to
5335 satisfy HMGP requirements or that have experienced significant disruption from a declared disaster
5336 or other event that impacts their ability to complete HMGP activities.

5337 Recipients must apply to FEMA for an adjustment, provide justification that they need an exception,
5338 and complete one of the following:

- 5339 ▪ Provide a management plan that outlines how they will build state or tribal workforce
5340 proficiency and experience in grants management, mitigation planning or application review.
5341 This option is only available to recipients for whom FEMA has determined the degree of risk

5342 in making a federal award to and requires that special conditions be attached to the award
 5343 according to [2 CFR § 200.206](#).

- 5344 ▪ Enter into a PAS agreement if they meet program requirements.

5345 **A.9.4. HMGP: 12-MONTH ADJUSTMENT**

5346 The recipient is eligible to apply for the total management costs award subject to certain
 5347 withholdings 12 months after the major disaster declaration.

5348 FEMA will provide management costs for subrecipients (through the recipient) upon the agency’s
 5349 approval of each subaward, up to five percent of each project cost. Subrecipients must meet
 5350 application and submission requirements.

5351 **A.9.5. HMGP: CLOSE OF APPLICATION PERIOD**

5352 If the recipient does not fully apply for the HMGP ceiling, FEMA must adjust the amount of available
 5353 or obligated management costs based on the total amount of subapplications submitted by the end
 5354 of the application period. If the HMGP ceiling is adjusted after the application has closed, FEMA may
 5355 provide additional management costs based on budget amendments applied to existing
 5356 subapplications.

5357 Regardless of when subawards are obligated, if the total amount of the award is adjusted for any
 5358 reason, FEMA will deobligate management costs that exceed the 15 percent cap (10 percent for
 5359 recipient and 5 percent for subrecipient) based on updated calculations at the end of the application
 5360 period or if the HMGP ceiling is adjusted, whichever is later.

5361 **A.10. HMGP: Application Period**

5362 The applicant must submit all HMGP subapplications (including recipient and subrecipient
 5363 management costs requests) to FEMA within 12 months of the date of the major disaster
 5364 declaration. Upon written request and justification from the recipient, FEMA may extend the
 5365 application submission timeline in 30- to 90-day increments not to exceed a total extension of 180
 5366 calendar days, for a total possible application period of 18 months, in the event of extraordinary
 5367 conditions.²⁷²

5368 FEMA may extend the application period beyond 180 calendar days based on meeting the criteria of
 5369 section 301 of the Stafford Act,²⁷³ which provides relief for the rare and extraordinary circumstance
 5370 when the magnitude of the event for which the extension is requested prevents the recipient from
 5371 meeting program administrative requirements. These requests will be considered on a case-by-case
 5372 basis.

²⁷² [44 CFR § 206.436](#)

²⁷³ [42 U.S.C. § 5141](#)

5373 If the HMGP ceiling amount is recalculated after the application period has closed, FEMA cannot
5374 reopen the application period. If the application period is open, the recipient can submit a request to
5375 extend the application period in accordance with [Part 6](#). The recipient must submit the request to
5376 the FEMA associate administrator through the regional administrator or, if there is a joint field office,
5377 through the federal coordinating officer. The regional administrator or federal coordinating officer will
5378 provide their comments or concurrence and forward the request. To be considered, the applicant's
5379 inability to meet the HMGP application period deadline must have resulted from the event leading to
5380 the major disaster declaration.

5381 Extension requests must be submitted while the application period is still open. All extension
5382 requests submitted by the recipient must:

- 5383 ▪ Demonstrate that the recipient has made substantial progress in implementing the
5384 mitigation strategy and has submitted complete, eligible applications for a significant portion
5385 of HMGP assistance. FEMA will not accept incomplete or placeholder applications.
- 5386 ▪ Include a detailed narrative justification for the extension request that must:
 - 5387 ○ Describe how the disaster created the conditions that prevented the recipient from
5388 meeting the application period deadline.
 - 5389 ○ Document how HMGP was implemented consistent with the Administrative Plan
5390 including successes, challenges and failures.
 - 5391 ○ Provide an implementation strategy and goals to use the remaining assistance including
5392 a reasonable assessment of the additional time requested and an updated
5393 Administrative Plan.
 - 5394 ○ Identify any technical assistance that can assist in addressing resource gaps and/or is
5395 needed by the recipient to successfully implement the program.
- 5396 ▪ Provide a schedule of 30-day milestones and the associated goals for successful application
5397 submission up to the HMGP ceiling. FEMA will require the recipient to provide monthly
5398 updates to measure progress in implementing HMGP.
- 5399 ▪ Explain why any program support resources, including project scoping/advance assistance,
5400 technical assistance or training that FEMA provided during the application period were
5401 insufficient to successfully meet the application deadline.

5402 FEMA will not accept lack of capacity as a valid justification for an extension if the recipient has not
5403 requested program support. For example, recipients must report problems, delays or adverse
5404 conditions that weaken their ability to meet the timeline for the request for extension to be justified.
5405 In addition, recipients must make efforts to address problems, delays or adverse conditions to have
5406 adequate justification for FEMA to approve a request.

5407 **A.11. HMGP: Cost Share and Global Match**

5408 HMGP awards are required to have at least a 25 percent non-federal cost share (excluding
5409 management costs). The recipient may choose to meet the cost share requirement by ensuring a
5410 minimum 25 percent non-federal share for the overall HMGP award rather than on an individual
5411 subaward basis. This strategy is referred to as global match. Recipients choosing this option should
5412 develop a cost share strategy as part of their Administrative Plan for FEMA review and approval.

5413 Global match allows the recipient to use any cost share match that exceeds the minimum
5414 requirement (referred to as overmatch) from certain subawards to alleviate the financial burden on
5415 other activities. Recipients choosing this option should develop a cost share strategy as part of their
5416 Administrative Plan for FEMA review and approval.

5417 The Administrative Plan must include a cost share strategy that explains how the applicant will:

- 5418 ▪ Apply this approach fairly and impartially to all subapplicants.
- 5419 ▪ Monitor the cost share for the overall award throughout the period of performance.
- 5420 ▪ Address any cost share shortfalls that may occur during the period of performance and at
5421 closeout.

5422 If the non-federal cost share of the award is less than 25 percent of the total amount at closeout,
5423 FEMA will recoup the amount of federal assistance needed to bring the cost share into compliance.

5424 Insular areas including American Samoa, Guam, the Northern Mariana Islands and the U.S. Virgin
5425 Islands may have a portion of their cost share waived if program requirements allow.²⁷⁴ For more
5426 information, please see Section Part 4.J on Cost Share in [Part 4](#).

5427 **A.12. HMGP: Disaster Spend Plan**

5428 The HMGP Disaster Spend Plan (Spend Plan) is a forecasting tool that FEMA uses to evaluate the
5429 assistance needs of HMGP during a disaster. FEMA manages the timing of HMGP project awards and
5430 ensures assistance is available for obligation of approved activities.

5431 It is critical that the recipient is an active participant in the Spend Plan. The recipient identifies
5432 assistance priorities for activities, forecasts assistance needs for future months and revises
5433 projections each month in coordination with FEMA. This process induces a more collaborative
5434 working relationship between FEMA and the recipient.

²⁷⁴ [48 U.S.C. § 1469a](#)

5435 **A.13. HMGP: Quarterly Progress Reports**

5436 FEMA distributes spreadsheets to recipients each quarter. The spreadsheets are prepopulated with
 5437 information pulled from the electronic application system to indicate the open, obligated activities
 5438 that require Quarterly Progress Reports. The recipient coordinates with their subrecipients to collect
 5439 project information to update the fields in the spreadsheet. The recipient then returns the Quarterly
 5440 Progress Reports to their FEMA region by the due date.

5441 The recipient shall submit a Quarterly Progress Report for each award no more than 30 calendar
 5442 days after the quarter end date. [Table 11](#) describes the Quarterly Progress Report due dates.

5443 **Table 11: HMGP Quarterly Progress Report Timing**

Quarter	Quarter Dates	Report Due Dates
1	October 1 – December 31	January 30
2	January 1 – March 31	April 30
3	April 1 – June 30	July 30
4	July 1 – September 30	October 30

5444
 5445 Progress reports should include:

- 5446 ▪ Reporting period, including fiscal year and quarter.
- 5447 ▪ Project identification information, including disaster number, FEMA application identification,
 5448 project number, subrecipient name and project title.
- 5449 ▪ Significant activities and developments that have occurred or have shown progress during
 5450 the quarter, including a comparison of actual accomplishments to the work schedule
 5451 objectives established in the subaward.
- 5452 ▪ Percent completion and whether completion of work is on schedule; a discussion of any
 5453 problems, delays or adverse conditions that will impair the ability to meet the timelines
 5454 stated in the subaward; and anticipated completion date.
- 5455 ▪ The percent complete noted as a percentage of the entire project (e.g., 50 percent or
 5456 whatever is deemed appropriate by the state), not 100 percent (if Phase I of a Phase II
 5457 project is complete). If Phase II is not eligible and will therefore not move forward, the project
 5458 is considered 100 percent complete. However, if Phase II is eligible/obligated, the Quarterly
 5459 Progress Report should reflect 100 percent only once the approved scope of work is
 5460 completed under Phase II. If Phase II is not eligible and will therefore not move forward, the
 5461 project is considered 100 percent complete. However, if Phase II is eligible/obligated, the
 5462 Quarterly Progress Report should reflect 100 percent only once the approved scope of work
 5463 is completed under Phase II.

5464

5465 ▪ Status of costs, including whether the costs are unchanged, overrun or underrun. If there is a
 5466 change in cost status, the report should include a description of the change in the comment
 5467 column. The amount dispersed to the subrecipient by project should also be included. If
 5468 there is a change in cost status, the report should include a description of the change in the
 5469 comment column. The amount dispersed to the subrecipient by project should also be
 5470 included.

5471 ▪ A statement of whether a request to extend the award period of performance is anticipated,
 5472 provided in the comment column.

5473 ▪ The total recipient drawdown amount and most recent drawdown date, the total amount of
 5474 federal assistance disbursed, the subrecipient expenditure to date and the date of final
 5475 payment to subrecipient.

5476 ▪ The total number of properties acquired and their corresponding property identification
 5477 numbers (for acquisition projects).

5478 ▪ Additional information as required by FEMA to assess the progress of an award.

5479 FEMA may suspend drawdowns from federal financial systems (e.g., Payment Management System
 5480 [SMARTLINK] or Payment and Reporting System [PARS]) if Quarterly Progress Reports are not
 5481 submitted on time.

5482 **A.14. HMGP: Appeal Process**

5483 An eligible applicant, subapplicant, recipient or subrecipient may appeal any FEMA determination
 5484 regarding applications or subapplications submitted for assistance under HMGP.²⁷⁵ The subjects of
 5485 these appeals include but are not limited to FEMA’s denial of an applicant/subapplicant eligibility,
 5486 mitigation plan requirements, application period extensions, EHP considerations, project or plan
 5487 eligibility, technical feasibility, cost-effectiveness, open space compatibility and closeout
 5488 determinations and deobligations. Applicants, subapplicants, recipients or subrecipients may also
 5489 appeal the placement of conditions on the award and any remedy of noncompliance that FEMA may
 5490 take, including termination or suspension of the award.

5491 FEMA will only consider written appeals that justify the request for reconsideration.²⁷⁶ The appeal
 5492 must be submitted according to the procedures outlined below. At any point in the appeal process,
 5493 the recipient may withdraw their appeal by submitting a written request simultaneously to FEMA and

²⁷⁵ [44 CFR § 206.440](#)

²⁷⁶ [44 CFR § 206.440\(a\)](#)

5494 the subapplicant/subrecipient. All second decisions represent FEMA’s final administrative
5495 decision.²⁷⁷

5496 **A.14.1. HMGP: CONTENT FOR FIRST AND SECOND APPEALS**

5497 The applicant/recipient and/or subapplicant/subrecipient must include:

- 5498 ▪ All relevant documentation supporting their position. Such documentation may include scope
5499 of work, budgets, EHP review, technical testimony, purchase receipts, before and/or after
5500 photographs and changes to the application or other relevant information that may help
5501 FEMA make a final decision.
- 5502 ▪ The specific amount of assistance (or amounts if there are multiple issues on appeal) in
5503 dispute, as applicable.
- 5504 ▪ Citations to the provisions of law, regulation or policy (applicable to the respective disaster)
5505 with which the applicant believes FEMA’s determination was inconsistent.
- 5506 ▪ Recipient’s recommendation on appeals from a subapplicant/subrecipient for whom they are
5507 forwarding to FEMA.

5508 **A.14.2. HMGP: APPEAL DEADLINE**

5509 An appellant is the applicant, subapplicant, recipient or subrecipient that is appealing a FEMA
5510 determination. Appellants must submit documentation within 60 calendar days after receiving the
5511 initial written notice of FEMA’s determination (FEMA’s eligibility determination or first appeal
5512 decision).²⁷⁸

5513 Whether the appeal originated with the applicant/recipient or with a subapplicant/subrecipient, the
5514 appeal must be submitted in writing to the FEMA regional administrator by the recipient. The
5515 recipient must forward all appeals from a subapplicant/subrecipient with a written recommendation
5516 to the regional administrator within 60 calendar days of receipt of the appeal.²⁷⁹

5517 If either the applicant or recipient submits the appeal after the 60-day deadline, FEMA will deny the
5518 appeal as untimely.

5519 **A.14.3. HMGP: APPEAL REVIEW**

5520 Upon receipt of the appeal, FEMA reviews the appeal content and uses the administrative record and
5521 the laws, regulations and policies applicable to each case to analyze the appeal. FEMA may request
5522 additional information via a Request for Information (RFI) to adequately adjudicate the appeal or

²⁷⁷ [44 CFR § 206.440\(e\)\(3\)](#)

²⁷⁸ [44 CFR § 206.440\(c\)](#)

²⁷⁹ [44 CFR § 206.440\(c\)\(2\)](#)

5523 make its decision based on the documentation and information provided at the time of appeal
 5524 submission. Within 90 calendar days of receiving the appeal, FEMA takes one of the following three
 5525 actions:²⁸⁰

5526 ▪ Requests additional information specifying the date FEMA must receive information. Within
 5527 90 calendar days of receiving the information (or within 90 calendar days of the expiration of
 5528 the deadline to respond), FEMA provides the appeal decision to the recipient.

5529 ▪ Submits the appeal to an independent expert or experts for technical review and
 5530 recommendations. Within 90 calendar days of receiving the technical review
 5531 recommendations, FEMA provides its appeal decision to the recipient.²⁸¹

5532 ▪ Provides a written decision to the recipient using a method that confirms receipt (through
 5533 electronic application systems, return receipt mail, email with read-receipt acknowledgement
 5534 or other methods that confirm receipt).

5535 **A.14.4. HMGP: REQUEST FOR INFORMATION FOR APPEALS**

5536 If FEMA needs additional information, the agency will determine a date by which the information
 5537 must be provided. Within 90 calendar days following the receipt of the requested additional
 5538 information (or 90 calendar days after the information was due), FEMA will notify the recipient in
 5539 writing of the disposition of the appeal.

5540 FEMA generally issues a RFI when it identifies specific documentation or information that, if
 5541 provided, might impact the outcome of the appeal or assist the agency in responding adequately to
 5542 the appeal.

5543 **A.14.5. HMGP: FIRST APPEAL PROCESS**

5544 The FEMA regional administrator is the decision-maker on first appeals.²⁸² In some cases, the appeal
 5545 may involve technical issues. In these cases, FEMA may consult independent scientific or technical
 5546 experts on the subject under appeal. Within 90 calendar days following the receipt of an appeal,
 5547 FEMA will notify the recipient in writing of either the disposition of the appeal or the need for
 5548 additional information. If the decision is to grant the appeal, the regional administrator will take the
 5549 appropriate action.

5550 **A.14.6. HMGP: SECOND APPEAL PROCESS**

5551 The second appeal provides an appellant the right to dispute monetary disputes or program
 5552 determinations of a previous appeal decision. If the decision is to grant the appeal, the FEMA

²⁸⁰ [44 CFR § 200.440\(c\)\(3\)](#)

²⁸¹ [44 CFR § 206.440\(d\)](#)

²⁸² [44 CFR § 206.440\(b\)](#)

5553 regional administrator will take the appropriate action. [Figure 11](#) outlines the second appeal process
5554 for HMGP.

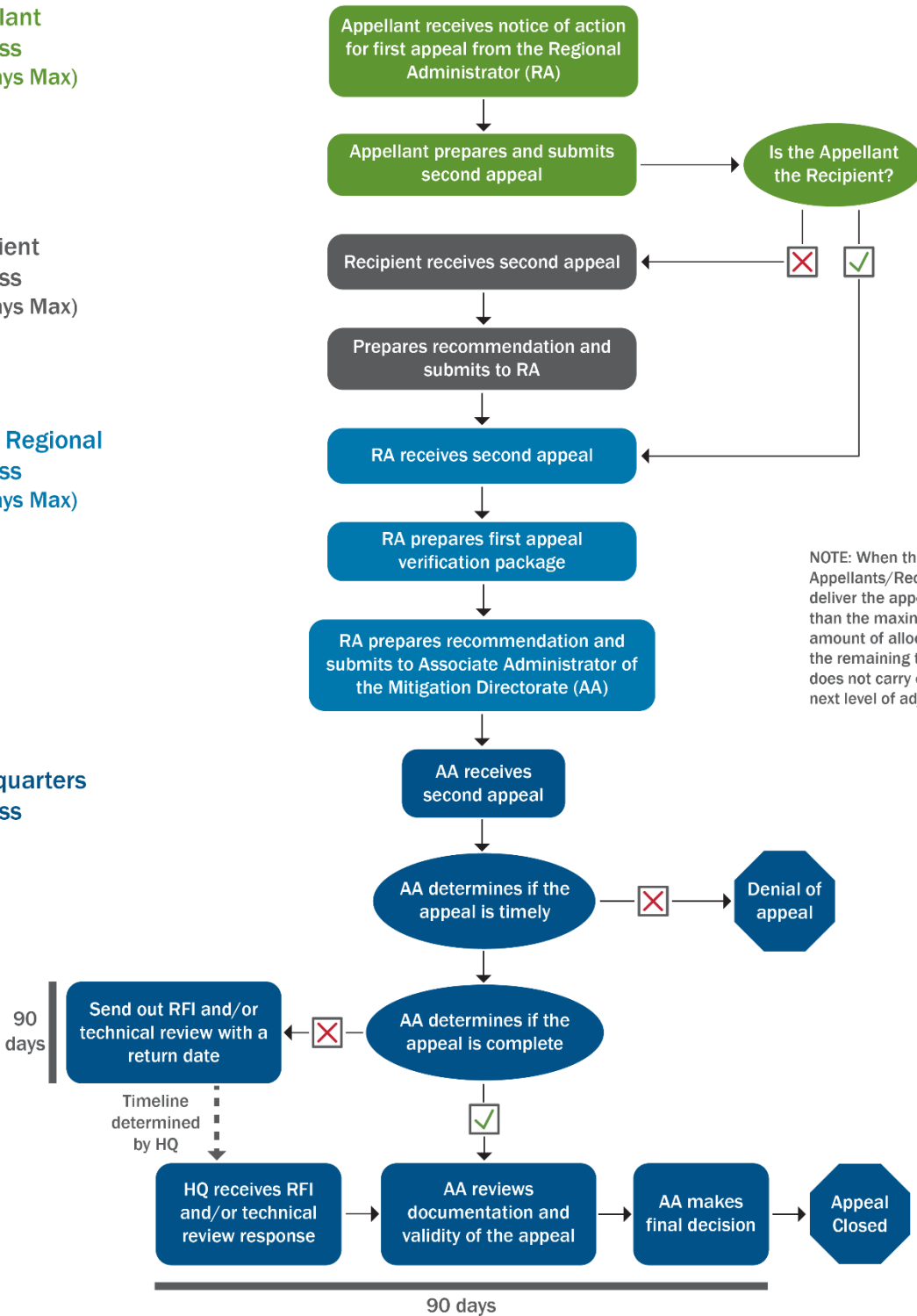
Second Appeal Process for HMGP

Appellant Process
(60 Days Max)

Recipient Process
(60 Days Max)

FEMA Regional Process
(14 Days Max)

FEMA Headquarters Process



5555

5556

Figure 11. HMGP Second Appeal Process Flowchart

A.14.6.1. HMGP: Appellant Second Appeal

To begin the second appeal process, appellants must submit documentation to FEMA within 60 calendar days after receiving the initial notice of the action on the first appeal. When the appellant is the subapplicant/subrecipient, the appeal must be submitted to the recipient prior to the expiration of the 60-day period.

A.14.6.2. HMGP: Recipient Second Appeal

The recipient reviews the appeal and prepares a recommendation to submit to the FEMA regional administrator. The appeal and supporting documentation must be forwarded to the regional administrator within 60 calendar days of receipt of the second appeal. When the appellant is the recipient, no recommendation is needed because the appeal acts as its disposition. Otherwise, the recipient acts as the reviewer.

A.14.6.3. HMGP: Region Second Appeal

Upon receipt of the appeal package, the FEMA regional administrator will review the package for regulatory requirements. Once completed, the regional administrator or federal coordinating officer will forward the appeal, along with a recommendation, to the associate administrator for the Mitigation Directorate.

An appeal verification package confirms that the appellant is eligible for a second appeal. As part of the verification package, the region should prepare the following items to submit to FEMA headquarters:

- A decision letter that documents the initial action taken by the region or recovery office regarding the HMGP application or subapplication precedes the first appeal and usually outlines the basis for denial.
- The set of first appeal documents submitted by the appellant opposing the decision letter.
- The recipient recommendation for first appeal, which documents the pass-through entity's position on the first appeal (if applicable).
- A notice of the action that documents the first appeal decision of the FEMA regional administrator, which is typically the action disputed in the second appeal.
- The set of second appeal documents submitted by the appellant opposing the notice of the action (first appeal decision).
- An appeal recommendation from the regional administrator and/or recovery office that documents the region's preliminary review of the second appeal. If the appellant submits supplemental information, the region should note these changes. No matter which office (region or recovery office) provides the second appeal, the recommendation must accompany the appeal submission to FEMA headquarters.

5591 The verification package should be submitted to FEMA headquarters within 14 calendar days of
 5592 receipt of the second appeal. If the appeal is not received in a timely manner, the appeal will not be
 5593 considered eligible for review. [Figure 11](#) outlines the second appeal process for HMGP.

5594 **A.14.6.4. HMGP: FEMA Headquarters Second Appeal**

5595 Upon receipt from the region, FEMA headquarters will make an independent assessment of the
 5596 appeal. If all documentation is included, the assistant administrator for the Mitigation Directorate
 5597 notifies the recipient in writing of the disposition of the appeal within 90 calendar days. If additional
 5598 information is needed, regardless of an internal or external request, FEMA headquarters determines
 5599 a date by which the RFI must be returned. In cases when the appeal requires a highly technical
 5600 analysis, FEMA headquarters will consult an independent scientific or technical expert on the
 5601 subject. Once FEMA headquarters has completed the RFI and technical review processes, FEMA
 5602 headquarters notifies the recipient in writing of the disposition within 90 calendar days. The
 5603 assistant administrator for the Mitigation Directorate makes the final decision.²⁸³ If the appeal deals
 5604 with a mitigation planning subaward, the assistant administrator will coordinate with the National
 5605 Mitigation Planning program.

5606 A FEMA delay in issuing a decision beyond the applicable 90 or 180 calendar days does not compel
 5607 the FEMA regional administrator or associate administrator to decide in the appellant's favor.

5608 **B. Hazard Mitigation Grant Program Post Fire**

5609 HMGP Post Fire assistance is available for areas that received a Fire Management Assistance Grant
 5610 (FMAG) declaration, even if no major disaster declaration was made. Section 420 of the Stafford Act
 5611 authorizes FEMA to provide assistance under its FMAG program for the mitigation, management and
 5612 control of any fire that threatens such destruction as would constitute a major disaster.²⁸⁴ Whether
 5613 or not a major disaster is declared, the President may provide HMGP Post Fire assistance in
 5614 accordance with section 404 of the Stafford Act in any area affected by a fire for which assistance
 5615 was provided under section 420 of the Stafford Act.²⁸⁵

5616 Throughout the HMA Guide, unless specified otherwise in this section, activity development,
 5617 application, submission and grants management processes that apply to HMGP will also apply to
 5618 HMGP Post Fire. In addition, all eligible activities under HMGP are also eligible under HMGP Post
 5619 Fire.

5620 **B.1. HMGP Post Fire: Request for Assistance**

5621 Section 1204 of the DRRRA amended section 404 of the Stafford Act to allow FEMA to provide HMGP
 5622 Post Fire assistance for hazard mitigation measures that substantially reduce the risk of future

²⁸³ [44 CFR § 206.440\(e\)\(3\)](#)

²⁸⁴ [42 U.S.C. § 5187](#)

²⁸⁵ [42 U.S.C. § 5170c](#)

5623 damage, hardship, loss or suffering in any area affected by a fire for which assistance was provided
5624 under section 420 of the Stafford Act. Therefore, unlike HMGP, the availability of HMGP Post Fire
5625 assistance is not contingent on a major disaster declaration and is instead triggered by an FMAG
5626 declaration.²⁸⁶ Eligible activities may be outside of the declared area as long as the risk
5627 reduction benefits include the declared county or counties (e.g., watershed mitigation). If funding
5628 cannot be used in the declared areas, it may be made available statewide.

5629 States, certain federally recognized tribes and territories that have received an FMAG declaration are
5630 eligible to apply for assistance under HMGP Post Fire.

5631 Federally recognized tribes have multiple options for applying for HMGP Post Fire. Under an FMAG
5632 declaration made to a state or territory, federally recognized tribes with burned land from the FMAG
5633 declared event may request an HMGP award as recipients. If a tribe chooses to be a recipient, the
5634 tribe must notify FEMA of its intent to apply within 60 days of the state’s assistance notification as
5635 noted in [B.4 HMGP Post Fire: Available Assistance](#). Tribes (including federally recognized tribes) may
5636 also apply through the state to FEMA as subapplicants. Subapplicants will follow the standard HMGP
5637 subapplicant procedures consistent with program guidance including updates in effect at the time of
5638 the FMAG declaration.

5639 A signed FEMA-State Agreement or FEMA-Tribal Agreement is required to implement the HMGP Post
5640 Fire program following FMAG declarations.

5641 **B.2. HMGP Post Fire: Administrative Plan**

5642 The HMGP Post Fire Administrative Plan (Administrative Plan) is a procedural guide that details how
5643 the recipient will administer HMGP Post Fire awards and subawards. Recipients must have a current
5644 Administrative Plan approved by FEMA before receiving HMGP Post Fire assistance. The
5645 Administrative Plan may become an annex or chapter of the state’s or tribe’s overall emergency
5646 response and operations plan or comprehensive mitigation program strategy.

5647 At a minimum, the Administrative Plan must:

- 5648 ▪ Designate the agency that will act as recipient.
- 5649 ▪ Identify the applicant’s hazard mitigation officer or designated representative.
- 5650 ▪ Identify staffing requirements and resources, including a procedure for expanding staff
5651 temporarily following a disaster, if necessary.
- 5652 ▪ Establish procedures to guide implementation activities, including recipient management
5653 costs and distribution of subrecipient management costs.

²⁸⁶ [44 CFR § 204.21](#)

5654 ▪ Establish procedures for monitoring and reporting on subrecipient management costs.

5655 ▪ Comply with any other requirements outlined in [44 CFR § 206.437](#).

5656 Recipients must complete the [HMGP Administrative Plan Checklist](#) as part of the review of the plan.

5657 **B.3. HMGP Post Fire: Eligibility**

5658 The following sections highlight eligibility for HMGP Post Fire. All eligibility requirements in [Part 4](#)
5659 must also be met. Additional information also can be found on FEMA’s [“Hazard Mitigation Grant](#)
5660 [Program” webpage](#).

5661 **B.3.1. HMGP POST FIRE: ELIGIBLE APPLICANTS AND SUBAPPLICANTS**

5662 States and territories that have received an FMAG declaration are eligible to apply for assistance
5663 under HMGP Post Fire. Federally recognized tribes with burned land under a state or territory FMAG
5664 declared event may apply for HMGP Post Fire as an applicant/recipient.

5665 Tribes (including federally recognized tribes) may apply through the state to FEMA as subapplicants
5666 and will follow the standard HMGP subapplicant procedures consistent with program guidance,
5667 including updates in effect at the time of the FMAG declaration.

5668 As described in [Part 4](#), PNP organizations may act as the subapplicant for HMGP if they own or
5669 operate a private nonprofit facility.²⁸⁷

5670 **B.3.2. HMGP POST FIRE: PLAN REQUIREMENTS**

5671 States, territories, and/or federally recognized tribes applying for HMGP Post Fire must have a FEMA-
5672 approved mitigation plan at the time of the FMAG declaration and at the time HMGP Post Fire
5673 assistance is obligated. Subapplicants applying for HMGP Post Fire assistance must have a FEMA-
5674 approved mitigation plan when assistance is obligated. A lapse in the FEMA-approved mitigation plan
5675 will result in a temporary hold on obligations until the mitigation plan regains FEMA approval.

5676 **B.3.3. HMGP POST FIRE: ELIGIBLE ACTIVITIES**

5677 Activities that can be accomplished under HMGP Post Fire are generally the same as those under
5678 HMGP and BRIC. HMGP Post Fire prioritizes wildfire and post-wildfire mitigation activities, to include
5679 defensible space measures, ignition-resistant building materials, hazardous fuels reduction
5680 activities, erosion control measures, slope stabilization and post-wildfire flood reduction measures
5681 authorized under section 404(f) of the Stafford Act.²⁸⁸ As in other HMA programs, these activities are
5682 required to be cost-effective.

²⁸⁷ [44 CFR § 206.434\(a\)\(2\)](#)

²⁸⁸ [42 U.S.C. § 5170c](#)

5683 Recipients will prioritize HMGP Post Fire activities in the following manner:

5684 1. Activities that benefit the declared county, counties or burned tribal lands with wildfire hazard
5685 mitigation projects such as defensible space measures, ignition-resistant construction,
5686 hazardous fuels reduction, erosion control measures, slope stabilization or post-wildfire flood
5687 reduction measures.

5688 2. Activities unrelated to wildfire hazard mitigation, such as generally allowable HMGP projects
5689 within the declared county, counties or burned tribal lands.

5690 3. Activities related to wildfire hazard mitigation, such as generally allowable HMGP projects,
5691 outside of the declared county, counties or burned tribal lands.

5692 4. Activities unrelated to wildfire hazard mitigation, such as generally allowable HMGP projects
5693 outside of the declared county, counties or burned tribal lands.

5694 For state or tribal applications for activities outside of the declared or burned area(s), the recipient or
5695 subrecipient must explain in the subapplication why the assistance will not be used in the declared
5696 or burned area(s).

5697 **B.4. HMGP Post Fire: Available Assistance**

5698 FEMA will calculate the amount of assistance available under HMGP Post Fire based on the 10-year
5699 national average of assistance provided under FMAG declarations for the states. FEMA will provide
5700 two separate calculations: one for recipients that have mitigation plans and a higher calculation for
5701 recipients that have enhanced mitigation plans.

5702 FEMA will recalculate the national average and the amount of assistance available at the beginning
5703 of each fiscal year. The revised amount will be available for declarations for that fiscal year, October
5704 1 to September 30.

5705 FEMA will aggregate assistance from multiple events into one award per recipient under the first
5706 declaration for that fiscal year unless the recipient informs FEMA of reasons for not aggregating.
5707 Aggregation will reset at the beginning of each fiscal year and remain in effect for that year.

5708 **B.5. HMGP Post Fire: Apportionment**

5709 Federally recognized tribes with burned land because of a declared FMAG may apply to FEMA as
5710 HMGP Post Fire applicants. The tribe must notify FEMA of its intent to apply within 60 calendar days
5711 of the state’s assistance notification. If FEMA approves assistance for both the state/territory and
5712 the tribe, it will apportion the amount of assistance between the state or territory and the tribal
5713 government. The apportionment will be calculated based on the amount of each recipient’s burned
5714 acreage as a percentage of the allotment to which they are entitled under the calculation described
5715 above. FEMA regional administrators will have final authority on apportionment determinations.

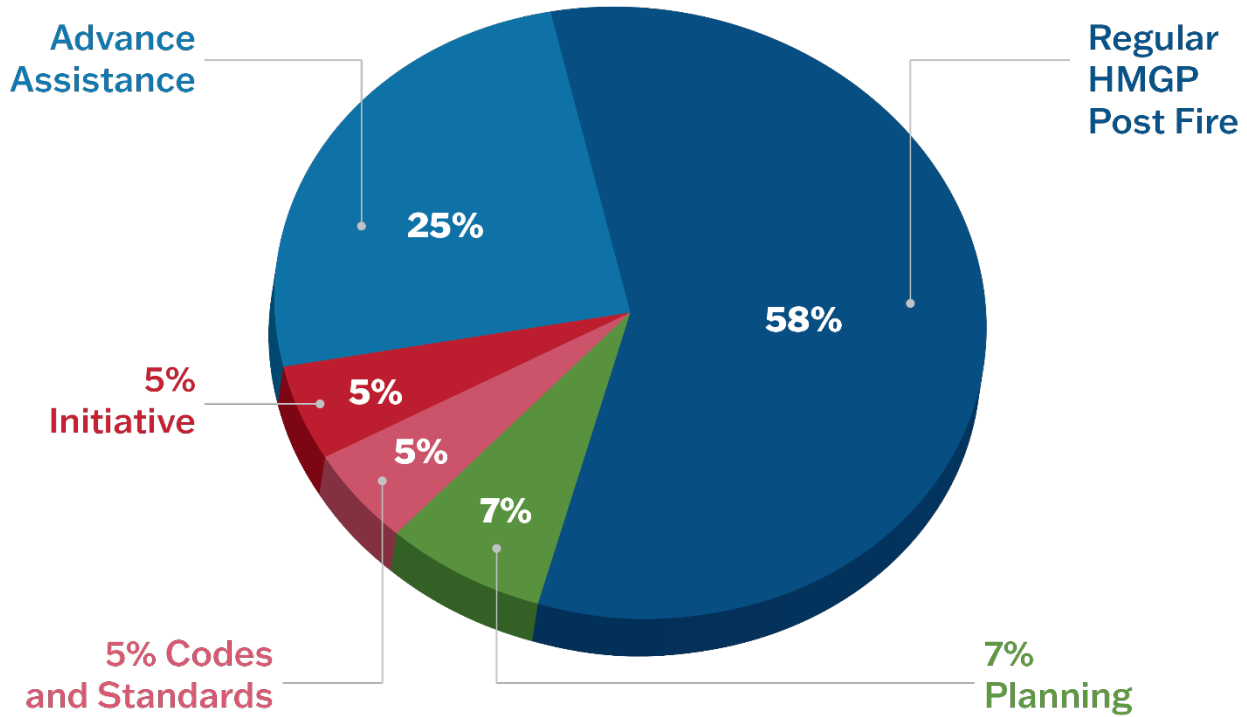
5716 **B.6. HMGP Post Fire: Assistance Restrictions**

5717 Assistance restrictions are caps or restrictions on the amount of assistance that applicants may use
5718 for specific activities under the HMGP Post Fire award. For HMGP Post Fire, the restrictions include
5719 the following:

- 5720 ▪ **Advance assistance:** Advance assistance (known as project scoping for BRIC and FMA) is
5721 authorized by section 404(e) of the Stafford Act,²⁸⁹ which allows advancing up to 25 percent
5722 of the available assistance, whichever is less. For more detail, see [Part 11](#), [Part 11.B. Project](#)
5723 [Scoping/Advance Assistance](#).
- 5724 ▪ **5 Percent Initiative:** Up to five percent of the recipient’s available assistance may be used for
5725 mitigation measures that are difficult to evaluate against traditional program cost-
5726 effectiveness. For more detail, see subsection [B.6.1 HMGP Post Fire: The 5 Percent Initiative](#).
- 5727 ▪ **7 percent planning:** Up to seven percent of the recipient’s available assistance may be used
5728 for mitigation planning activities in compliance with [44 CFR § 201.3\(c\)\(4\)](#). For more detail,
5729 see [Part 11](#), [Part 11.A.3.1.4.1. HMGP and HMGP Post Fire 7 Percent Planning Funding](#).
- 5730 ▪ **5 Percent Codes and Standards:** Up to five percent of the recipient’s available assistance
5731 may be used for codes and standards mitigation activities. For more detail, see [Part 11](#), [Part](#)
5732 [11.E.2.6.1 HMGP and HMGP Post Fire Assistance Funding Restrictions for Codes and](#)
5733 [Standards](#).

5734 [Figure 12](#) highlights how HMGP Post Fire is broken down.

²⁸⁹ Advance Assistance was added by section 1104 of the Sandy Recovery Improvement Act of 2013, Public Law 113-2 (January 29, 2013).



Any 7%, 5% or 25% amounts not obligated under their categories revert back to regular HMGP Post Fire funds.

5735

5736

Figure 12. HMGP Post Fire Funding Breakdown

5737 B.6.1. HMGP POST FIRE: THE 5 PERCENT INITIATIVE

5738 Some mitigation activities are difficult to evaluate using FEMA-approved cost-effectiveness
 5739 methodologies. Up to five percent of the recipient’s HMGP ceiling may be set aside by the recipient
 5740 to pay for such activities. The 5 Percent Initiative funds cannot be used in situations where mitigation
 5741 activities can be evaluated under FEMA-approved cost-effectiveness methods but do not meet the
 5742 required Benefit-Cost Ratio.

5743 B.6.1.1. HMGP Post Fire: 5 Percent Initiative Eligibility

5744 To be eligible for the 5 Percent Initiative, activities must:

- 5745 ▪ Be difficult to evaluate against traditional program cost-effectiveness criteria.
- 5746 ▪ Comply with all applicable HMGP eligibility criteria as well as with federal, state and local
 5747 laws and ordinances.
- 5748 ▪ Be consistent with the goals and objectives of the relevant state, tribal or territorial (standard
 5749 or enhanced) mitigation plans and local mitigation plans.
- 5750 ▪ Be submitted for review with a narrative that indicates there is a reasonable expectation that
 5751 future damage or loss of life or injury will be reduced or prevented by the activity.

5752 Activities that might be eligible under the 5 Percent Initiative include:

- 5753 ▪ The use, evaluation and application of new, unproven mitigation techniques, technologies,
5754 methods, procedures or products.
- 5755 ▪ Purchase of equipment and systems for the purpose of warning citizens of impending
5756 hazards.
- 5757 ▪ Purchase of generators or related equipment, such as generator hookups.
- 5758 ▪ Hazard identification or mapping and related equipment for the implementation of mitigation
5759 activities; however, mapping for the sole purpose of updating a Flood Insurance Rate Map
5760 remains ineligible.
- 5761 ▪ Acquisition of geographic information system software, hardware and data used for
5762 mitigation.
- 5763 ▪ Public awareness or education campaigns about mitigation.
- 5764 ▪ Evaluation of model building codes in support of future adoption and/or implementation.

5765 **B.6.1.2. HMGP Post Fire: 5 Percent Initiative Closeout**

5766 The recipient will follow the closeout requirements for the mitigation activity that was funded under
5767 the 5 Percent Initiative. For public outreach, hazard identification and hazard mapping activities, the
5768 recipient should provide copies of the deliverables identified in the scope of work, including items
5769 such as printed materials, course videos and presentations.

5770 **B.6.1.3. HMGP Post Fire: 5 Percent Codes and Standards**

5771 Applicants may apply for up to five percent of the HMGP ceiling amount for codes and standards
5772 activities. The 5 Percent Codes and Standards offers expanded eligibility for a variety of codes and
5773 standards activities. This funding source must be used for codes and standards activities and may
5774 be paired with the 5 Percent Initiative for a total of up to 10 percent of the HMGP ceiling amount.

5775 Applicants may apply for 5 percent of the HMGP ceiling amount for codes and standards activities
5776 under the 5 Percent Initiative, in addition to the 5 Percent Codes and Standards funding mentioned
5777 immediately above. Applicants may use this funding opportunity if the 5 Percent Initiative assistance
5778 is not used for other activities. Codes and standards activities are just one type of eligible activity
5779 under the 5 Percent Initiative; see FEMA’s [“5% Initiative” webpage](#).

5780 **B.7. HMGP Post Fire: Management Costs**

5781 Management costs are indirect costs, direct administrative costs or other administrative expenses
5782 associated with a specific project or mitigation activity. The amounts, allowable uses and procedures

5783 for HMGP Post Fire management costs are established in section 324 of the Stafford Act,²⁹⁰ as
5784 amended by section 1215 of the DRRRA. For more information on indirect costs, see [Part 13](#).

5785 Management costs are provided outside of and separate from the HMGP Post Fire ceiling amount.
5786 The total allowable management costs are up to 15 percent, of which up to 10 percent may be used
5787 by the recipient and up to 5 percent by the subrecipient. The subrecipient cannot request more than
5788 five percent of the total amount of the grant subaward. FEMA will obligate management cost
5789 assistance applied for by recipients and subrecipients in accordance with strategic funds
5790 management. There is no additional cost share requirement for HMGP Post Fire management costs.

5791 The recipient and subrecipients will be reimbursed for actual management costs incurred. All
5792 assistance exceeding the incurred costs will be returned to FEMA.

5793 FEMA will provide management costs under HMGP Post Fire in accordance with HMGP management
5794 costs outlined in **A.9 HMGP: Management Costs**, except that FEMA will not provide multiple
5795 estimates of the amount of management costs available. Instead, it will provide one estimate of the
5796 management costs available under HMGP Post Fire for the first fire for which assistance was
5797 provided under section 420 of the Stafford Act, which will be included in the formal funding
5798 notification. The estimate will subsequently be increased as appropriate for each FMAG event that is
5799 aggregated.

5800 Recipients cannot receive an additional five percent for management costs if also acting as a
5801 subrecipient. Management costs cannot be duplicated. However, other state and territorial agencies
5802 (other than the agency designated in the award agreement) who submit subapplications may apply
5803 for subrecipient management costs.

5804 See [Part 13](#) for more information on management costs.

5805 **B.8. HMGP Post Fire: Application Period**

5806 States, federally recognized tribes, and territories affected by fires resulting in an FMAG declaration
5807 are eligible to apply for HMGP Post Fire. The application period opens with the state or territory's first
5808 FMAG declaration of the fiscal year and closes six months after the end of that fiscal year.

5809 The FEMA regional administrator may grant up to two 90-day extensions to the application period.
5810 Additional extensions must be requested from the region and approved by the deputy associate
5811 administrator for the Mitigation Directorate. FEMA will send a formal assistance notification letter to
5812 eligible applicants with the first and each subsequent FMAG declaration.

²⁹⁰ [42 U.S.C. § 5165b](#)

5813 **B.9. HMGP Post Fire: Cost Share and Global Match**

5814 HMGP Post Fire awards are required to have at least a 25 percent non-federal cost share. The
 5815 recipient may choose to meet the cost share requirement by ensuring a minimum 25 percent non-
 5816 federal share for the overall HMGP Post Fire award rather than on an individual activity basis.
 5817 Recipients choosing this option should develop a cost share strategy as part of their Administrative
 5818 Plan for FEMA review and approval.

5819 Global match allows flexibility in which the non-federal cost share does not need to be 25 percent for
 5820 each individual subaward. Instead, under the global match, the non-federal cost share for all the
 5821 applicant’s submitted subawards combined must equal 25 percent for the overall disaster. Global
 5822 match allows the applicant to use any cost share match that exceeds the minimum requirement
 5823 (referred to as overmatch) from certain subawards to alleviate the financial burden on other
 5824 activities.

5825 If an applicant chooses to fund individual subawards with non-federal cost share below 25 percent
 5826 or use global match, the applicant must notify FEMA. If an applicant intends to carry out this
 5827 approach, the Administrative Plan must include a cost share strategy that explains how the applicant
 5828 will:

- 5829 ▪ Apply this approach fairly and impartially to all subapplicants.
- 5830 ▪ Monitor the cost share for the overall award throughout the period of performance.
- 5831 ▪ Address any cost share shortfalls that may occur during the period of performance and at
 5832 closeout.

5833 If the non-federal cost share of the award is less than 25 percent of the total amount at closeout,
 5834 FEMA will recoup the amount of federal assistance needed to bring the cost share into compliance.

5835 Insular areas including American Samoa, Guam, the Northern Mariana Islands and the U.S. Virgin
 5836 Islands may have a portion of their cost share waived if program requirements allow.²⁹¹

5837 **B.10. HMGP Post Fire: Disaster Spend Plan**

5838 The HMGP Disaster Spend Plan (Spend Plan) is a forecasting tool that FEMA uses to evaluate the
 5839 assistance needs of HMGP during a disaster. FEMA manages the timing of HMGP project awards and
 5840 ensures that assistance is available for obligation of approved activities.

5841 It is critical that the recipient is an active participant in the Spend Plan. The recipient identifies
 5842 assistance priorities for activities, forecasts assistance needs for future months and revises

²⁹¹ Omnibus Insular Areas Act of 1992, [Public Law 102-247 \(February 24, 1992\)](#)

5843 projections each month in coordination with FEMA. This process induces a more collaborative
5844 working relationship between FEMA and the recipient.

5845 **B.11. HMGP Post Fire: Quarterly Progress Reports**

5846 FEMA distributes spreadsheets to recipients each quarter. The spreadsheets are prepopulated with
5847 information pulled from the electronic application system to indicate the open, obligated activities
5848 that require Quarterly Progress Reports. The recipient coordinates with their subrecipients to collect
5849 project information to update the fields in the spreadsheet. The recipient then returns the Quarterly
5850 Progress Reports to their FEMA region by the due date.

5851 The recipient shall submit a Quarterly Progress Report for each award no more than 30 calendar
5852 days after the quarter end date. [Table 12](#) describes the Quarterly Progress Report due dates.

5853 **Table 12: HMGP Post Fire Quarterly Progress Report Timing**

Quarter	Quarter Dates	Report Due Dates
1	October 1 – December 31	January 30
2	January 1 – March 31	April 30
3	April 1 – June 30	July 30
4	July 1 – September 30	October 30

5854
5855 Progress reports should include:

- 5856 ▪ Reporting period, including fiscal year and quarter.
- 5857 ▪ Project identification information, including disaster number, FEMA application identification,
5858 project number, subrecipient name and project title.
- 5859 ▪ Significant activities and developments that have occurred or have shown progress during
5860 the quarter, including a comparison of actual accomplishments to the work schedule
5861 objectives established in the subaward.
- 5862 ▪ Percent completion and whether completion of work is on schedule; a discussion of any
5863 problems, delays or adverse conditions that will impair the ability to meet the timelines
5864 stated in the subaward; and anticipated completion date.
- 5865 ▪ The percent complete noted as a percentage of the entire project (e.g., 50 percent or
5866 whatever is deemed appropriate by the state), not 100 percent (if Phase I of a Phase II
5867 project is complete).
 - 5868 ○ If Phase II is not eligible and will therefore not move forward, the project is considered
5869 100 percent complete. However, if Phase II is eligible/obligated, the Quarterly Progress

5870 Report should reflect 100 percent only once the approved scope of work is completed
 5871 under Phase II.

5872 ▪ Status of costs, including whether the costs are unchanged, overrun or underrun. If there is a
 5873 change in cost status, the report should include a description of the change in the comment
 5874 column. The amount dispersed to the subrecipient by project should also be included. If
 5875 there is a change in cost status, the report should include a description of the change in the
 5876 comment column. The amount dispersed to the subrecipient by project should also be
 5877 included.

5878 ▪ A statement of whether a request to extend the award period of performance is anticipated,
 5879 provided in the comment column.

5880 ▪ The total recipient drawdown amount and most recent drawdown date, the total amount of
 5881 federal assistance disbursed, the subrecipient expenditure to date and the date of final
 5882 payment to the subrecipient.

5883 ▪ The total number of properties acquired and their corresponding property identification
 5884 numbers (for acquisition projects).

5885 ▪ Additional information as required by FEMA to assess the progress of an award.

5886 FEMA may suspend drawdowns from SMARTLINK or PARS if Quarterly Progress Reports are not
 5887 submitted on time.

5888 **B.12. HMGP Post Fire: Appeal Process**

5889 An eligible applicant, subapplicant, recipient or subrecipient may appeal any FEMA determination
 5890 regarding applications or subapplications submitted for assistance under HMGP Post Fire. FEMA will
 5891 only consider written appeals that justify the request for reconsideration. The appeal should specify
 5892 the monetary figure in dispute and the provisions in federal law, regulation or policy with which the
 5893 appellant believes the initial action was inconsistent. The appeal procedures are the same as HMGP.

5894 An eligible applicant, subapplicant, recipient or subrecipient may appeal any FEMA determination
 5895 regarding applications or subapplications submitted for assistance under HMGP. The subjects of
 5896 these appeals include but are not limited to FEMA’s denial of an applicant/subapplicant eligibility,
 5897 mitigation plan requirements, application period extensions, EHP considerations, project or plan
 5898 eligibility, technical feasibility, cost-effectiveness, open space compatibility, and closeout
 5899 determinations and deobligations. Applicants, subapplicants, recipients or subrecipients may also
 5900 appeal the placement of conditions on the award and any remedy of noncompliance that FEMA may
 5901 take, including termination or suspension of the award.

5902 FEMA will only consider written appeals that justify the request for reconsideration.²⁹² The appeal
 5903 must be submitted according to the procedures outlined below. At any point in the appeal process,
 5904 the recipient may withdraw its appeal by submitting a written request simultaneously to FEMA and
 5905 the subapplicant/subrecipient. All second decisions represent FEMA’s final administrative decision
 5906 on the matter.²⁹³

5907 **C. Building Resilient Infrastructure and Communities**
 5908 **Program**

5909 This section contains supplemental guidance specific to the BRIC program. If there are any
 5910 inconsistencies between the HMA Guide and the applicable Notice of Funding Opportunity (NOFO),
 5911 then the requirements in the applicable NOFO prevail.

5912 **C.1. BRIC: Guiding Principles**

5913 The BRIC program seeks to implement the following guiding principles to help communities
 5914 undertake hazard mitigation projects to reduce risks they face from potential natural hazard events:

- 5915 ▪ Support state and local governments, tribes and territories through capability- and capacity-
 5916 building to enable them to identify mitigation actions and implement projects that reduce
 5917 risks posed by natural hazards.
- 5918 ▪ Encourage and enable innovation while allowing flexibility, consistency and effectiveness.
- 5919 ▪ Promote partnerships and enable high-impact investments to reduce risk from natural
 5920 hazards with a focus on critical services and facilities, public infrastructure, public safety,
 5921 public health and communities.
- 5922 ▪ Provide a significant opportunity to reduce future losses and minimize impacts on the
 5923 Disaster Relief Fund (DRF).
- 5924 ▪ Promote equity, including by helping members of disadvantaged groups and prioritizing 40
 5925 percent of the benefits to disadvantaged communities as referenced in [Executive Order \(EO\)](#)
 5926 [14008: Tackling the Climate Crisis at Home and Abroad](#) (January 27, 2021) in line with the
 5927 Administration’s Justice40 Initiative.
- 5928 ▪ Support the adoption and enforcement of building codes, standards and policies that will
 5929 protect the health, safety and general welfare of the public, taking into account future
 5930 conditions, prominently including the effects of climate change, and have long-lasting

²⁹² [44 CFR § 206.440\(a\).](#)

²⁹³ [44 CFR § 206.440\(e\)\(3\)](#)

5931 impacts on community risk reduction, including for critical services and facilities and for
5932 future disaster costs.

5933 Additional guiding principles also might be outlined in the NOFO governing the respective BRIC
5934 application cycle.

5935 **C.2. BRIC: Eligibility**

5936 For specific eligibility criteria to receive assistance under BRIC, including eligible applicants and
5937 subapplicants, refer to FEMA’s [“Building Resilient Infrastructure and Communities”](#) webpage and the
5938 BRIC NOFO for the year funding is sought. General eligibility and requirements are also detailed in
5939 [Part 4](#).

5940 **C.2.1. BRIC: ELIGIBLE ACTIVITIES**

5941 BRIC eligible activities and requirements can be found in the most recent year NOFO.

5942 **C.2.1.1. BRIC: Capability and Capacity Building Activities**

5943 Under BRIC, FEMA may provide financial assistance in the allocation to applicants to carry out the
5944 following activities:

- 5945 ▪ Expand or improve the administration of mitigation assistance.
- 5946 ▪ Mitigate risk by creating and supporting partnerships.
- 5947 ▪ Develop or update mitigation priorities and plans.
- 5948 ▪ Pursue project-scoping activities
- 5949 ▪ Establish, adopt and enforce codes and standards consistent with applicable law
- 5950 ▪ Reduce vulnerability by identifying and implementing other hazard-mitigation activities,
5951 enhancing public safety, and improving the resilience of communities and critical
5952 infrastructure to natural hazards.

5953 All capability- and capacity-building activities should result in a resource, strategy or tangible
5954 mitigation product that will reduce or eliminate risk and damage from future natural hazards,
5955 increase resiliency and public safety, or promote a culture of preparedness. Capability- and capacity-
5956 building activities that have already been initiated or completed are not eligible for assistance.

5957 **C.2.1.2. BRIC: Nonfinancial Direct Technical Assistance**

5958 FEMA may provide nonfinancial direct technical assistance to promote the BRIC program, identify
5959 potential mitigation projects, develop and review applications and mitigation plans, and provide

5960 training on grants management. Additional information about the availability of technical assistance
5961 will be included in the NOFO.

5962 **C.2.1.3. BRIC: Mitigation Projects**

5963 FEMA may provide competitively awarded financial assistance to applicants to implement cost-
5964 effective mitigation projects designed to increase resilience and public safety and reduce injuries,
5965 loss of life, and damage and destruction of property, including damage to critical services and
5966 facilities.

5967 **C.2.1.4. BRIC: Management Costs**

5968 FEMA may provide financial assistance to reimburse the recipient and subrecipient for eligible and
5969 reasonable indirect costs, direct administrative costs and other administrative expenses associated
5970 with a specific mitigation measure or project in an amount up to 15 percent of the total amount of
5971 the grant award, of which not more than 10 percent of the total award amount may be used by the
5972 recipient and 5 percent by the subrecipient for such costs.²⁹⁴

5973 **C.3. BRIC: Available Assistance**

5974 For available assistance under BRIC, refer to FEMA’s “[BRIC](#)” webpage and the NOFO for the year
5975 funding is sought.

5976 **C.4. BRIC: Assistance Restrictions**

5977 Assistance is available only in states and territories that have received a major disaster declaration
5978 in the previous seven years. Assistance is also available to federally recognized tribal governments
5979 who have received a major disaster declaration or are located partially or entirely within the
5980 boundaries of such states in accordance with [42 U.S.C. § 5133\(g\)](#).

5981 FEMA will allocate assistance to states and territories for eligible activities consistent with the
5982 applicable statutory base and/or maximum allocations in the authorizing and appropriation laws.
5983 FEMA will administer the program as directed by Congress.

5984 FEMA may include additional BRIC assistance restrictions in the NOFO. Such restrictions may include
5985 but are not limited to:

- 5986 ▪ An allocation to each state and territory applicant for mitigation capability- and capacity-
5987 building activities and mitigation projects.
- 5988 ▪ A set-aside for an allocation to eligible tribal government applicants for mitigation capability-
5989 and capacity-building activities and projects.

²⁹⁴ [2 C.F.R. § 200.1](#)

- 5990 ▪ An allocation of a portion of the assistance on a competitive basis among eligible applicants.

5991 For all BRIC assistance restrictions, refer to the NOFO for the applicable year. The NOFO supersedes
5992 the information located within the HMA Guide.

5993 **C.5. BRIC: Management Costs**

5994 FEMA may provide financial assistance to reimburse the recipient and subrecipient for eligible and
5995 reasonable indirect costs, direct administrative costs and other administrative expenses associated
5996 with a specific mitigation measure or project. Applicants may apply for applicant management costs
5997 of up to 10 percent of the total BRIC grant application for management of the award and all selected
5998 subawards. Applicants requesting management costs must submit a separate management costs
5999 subapplication.

6000 Subapplicants may apply for a maximum of five percent of the total funds requested in a
6001 subapplication for management costs. Subapplicants requesting management costs must include
6002 them as a separate line item in the subapplication budget. Additional management costs
6003 considerations may be found in the NOFO. If any requirements in the HMA Guide conflict with the
6004 NOFO, the requirements in the NOFO take precedence.

6005 **C.6. BRIC: Application Period**

6006 For information regarding the BRIC application period, refer to FEMA's [BRIC](#) webpage and the NOFO
6007 for the year funding is sought.

6008 **C.7. BRIC: Cost Share**

6009 Generally, FEMA may provide up to 75 percent of the cost of eligible mitigation activities under BRIC.
6010 FEMA may provide up to 90 percent of the cost of eligible mitigation activities for small
6011 impoverished communities.²⁹⁵ FEMA will provide 100 percent federal assistance for eligible
6012 management costs. The appropriate year's NOFO may contain additional information about cost
6013 share availability.

6014 Applicants cannot apply other federal award assistance toward the BRIC non-federal cost share
6015 unless the other federal statutory authority allows the assistance to be used to meet cost share
6016 requirements.²⁹⁶ FEMA encourages innovative use of public and private-sector partnerships to meet
6017 the non-federal cost share.

²⁹⁵ [42 U.S.C. § 5133\(h\)](#)

²⁹⁶

6018 **C.7.1. BRIC: SMALL IMPOVERISHED COMMUNITIES**

6019 Small impoverished community subapplicants are eligible for an increase in cost share up to 90
6020 percent federal/10 percent non-federal under the BRIC program. Small impoverished communities
6021 are also known as economically disadvantaged rural communities. Non-federal cost share may
6022 consist of cash, donated or third-party in-kind services, materials or any combination thereof.

6023 A small impoverished community must:

- 6024 ▪ Be a community of 3,000 or fewer individuals identified by the applicant.
- 6025 ▪ Be economically disadvantaged, with residents having an average per capita annual income
6026 not exceeding 80 percent of the national per capita income, based on the best available
6027 data.²⁹⁷

6028 Applicants must certify and provide documentation of the community or jurisdictional status with the
6029 appropriate subapplication to justify the 90 percent cost share. If documentation is not submitted
6030 with the subapplication, FEMA will provide no more than the standard 75 percent of the total eligible
6031 costs.

6032 Federally recognized tribal governments meeting the definition of a small impoverished community
6033 that apply to FEMA directly as applicants are eligible for a 90 percent federal cost share for their
6034 subapplications, which make up their overall BRIC grant application.

6035 **C.8. BRIC: Subapplication Requirements**

6036 For subapplications submitted to the national competition, the subapplicant, in coordination with the
6037 applicant, must identify a series of go/no-go milestones throughout the work schedule for mitigation
6038 activities that FEMA will review and approve. A go/no-go milestone is a major milestone in the project
6039 that if not completed on time may result in a cancellation of the subaward. Progress toward meeting
6040 the go/no-go milestones must be reported in the Quarterly Progress Reports submitted to the
6041 recipient and FEMA. At these go/no-go milestones, FEMA will evaluate the project's performance,
6042 schedule adherence and contribution to FEMA's program goals and objectives. As of the BRIC fiscal
6043 year 2021 NOFO, go/no-go milestones are required for national competition awards. Additional
6044 information on go/no-go milestone requirements can be found in the yearly NOFOs.

6045 **C.9. BRIC: Applicant Ranking of Subapplications**

6046 Applicants must rank each subapplication included in their application in order of their priority for
6047 assistance. Each subapplication must be assigned a unique rank in the electronic application
6048 system. Applicants must explain the rank given to each subapplication and demonstrate how it is
6049 consistent with their state or tribal (standard or enhanced) mitigation plan.

²⁹⁷ [42 U.S.C. § 5133\(a\)](#)

6050 **C.10. BRIC: Award Selection**

6051 FEMA will consider subapplications for further review based on a four-part review:

- 6052 1. Eligibility and Completeness.
- 6053 2. National Technical Review (mitigation projects only).
- 6054 3. Technical Criteria.
- 6055 4. Qualitative Criteria.

6056 FEMA may identify a subapplication for further review out of rank order based on considerations
6057 such as program priorities, available assistance and policy factors.

6058 FEMA will notify applicants whose subapplications are identified for further review. However, this
6059 notification and the applicant’s compliance with FEMA-requested pre-award activities are not
6060 considered notification or guarantee of an award.

6061 **C.11. BRIC: Quarterly Progress Reports**

6062 Recipients are required to submit quarterly financial and progress reports to FEMA as a condition of
6063 their award acceptance throughout the period of performance, including partial calendar quarters, as
6064 well as for periods where no award activity occurs. Future awards and fund drawdowns may be
6065 withheld if these reports are delinquent, demonstrate a lack of progress or are insufficient in detail.
6066 Recipients are also required to submit closeout reports, which consist of the final financial and
6067 performance reports.

6068 Recipients must include progress toward their go/no-go milestones in their Quarterly Progress
6069 Reports. [Table 13](#) describes the Quarterly Progress Report due dates.

6070 **Table 13: BRIC Quarterly Progress Report Timing**

Quarter	Quarter Dates	Report Due Dates
1	October 1 – December 31	January 30
2	January 1 – March 31	April 30
3	April 1 – June 30	July 30
4	July 1 – September 30	October 30

6071

6072 **C.11.1. BRIC: FINANCIAL REPORTING REQUIREMENTS**

6073 Recipients must report obligations and expenditures on a quarterly basis through the Federal
6074 Financial Report to FEMA. Recipients must file the Federal Financial Report electronically. Award

6075 recipients must submit a Federal Financial Report quarterly throughout the period of performance,
6076 including partial calendar quarters, as well as for periods where no award activity occurs.

6077 **C.11.2. BRIC: PROGRESS REPORTING REQUIREMENTS**

6078 Recipients must submit a Quarterly Progress Report to FEMA in the electronic application system
6079 throughout the period of performance, including partial calendar quarters, as well as for periods
6080 where no award activity occurs.

6081 Reports are due within 30 calendar days from the end of the first federal quarter, following the initial
6082 award and thereafter until the award ends.

6083 For more information regarding BRIC reporting requirements, see the NOFO.

6084 **C.12. BRIC: Appeal Process**

6085 An eligible applicant/recipient or subapplicant/subrecipient may request an appeal of either of the
6086 following actions:

- 6087 ▪ FEMA’s denial of its application or subapplication for mitigation activities for which there is
6088 an indication of a substantive technical or procedural error.
- 6089 ▪ A remedy FEMA has taken for noncompliance with federal statutes, regulations or the terms
6090 and conditions of the award that results in suspension or termination of all or part of the
6091 award.

6092 FEMA provides only one opportunity to appeal a determination. FEMA will only consider written
6093 appeals that justify the request for reconsideration.

6094 Whether the appeal originated with the applicant/recipient or with a subapplicant/subrecipient, the
6095 applicant or recipient must submit an appeal in writing to the deputy associate administrator for the
6096 Mitigation Directorate within 60 calendar days after receiving a notice of the action that is being
6097 appealed.

6098 The subapplicant/subrecipient must submit its appeal in writing to the recipient, after which the
6099 recipient must review and evaluate the subrecipient’s appeal before submission to FEMA. The
6100 recipient must forward all appeals from a subrecipient with a written recommendation to FEMA
6101 within 60 calendar days of receiving the appeal from a subrecipient.

6102 For denials of applications or subapplications for mitigation activities, the appeal must identify any
6103 substantive technical or procedural error committed by FEMA. FEMA will only consider the
6104 information provided in the application or subapplication as supporting documentation.

6105 For remedies FEMA has taken for noncompliance, the appeal must contain documented justification
6106 supporting the appellant’s position; specify the monetary figure or FEMA action in dispute; and

6107 identify the provisions in federal law, regulation or policy with which the appellant believes the initial
6108 action was inconsistent.

6109 The applicant, subapplicant, recipient or subrecipient will be notified in writing of the disposition of
6110 the appeal or the need for additional information. For more information regarding BRIC appeal
6111 process, see the NOFO.

6112 **C.12.1. BRIC: APPEAL REVIEW AND DETERMINATION**

6113 Upon receipt of the appeal, FEMA reviews the appeal content and uses the administrative record and
6114 the laws, regulations and policies applicable to the respective case to analyze the appeal. FEMA may
6115 request additional information via an RFI to adequately adjudicate the appeal or make its decision
6116 based on the documentation and information provided at the time of appeal submission. Within 90
6117 calendar days of receiving the appeal, FEMA takes one of the following three actions:

6118 ▪ Requesting additional information specifying the date FEMA must receive information. Within
6119 90 calendar days of receiving the information (or within 90 calendar days of the expiration of
6120 the deadline to respond), FEMA provides the appeal decision to the recipient.

6121 ▪ Submitting the appeal to an independent expert or experts for technical review and
6122 recommendations. Within 90 calendar days of receiving the technical review
6123 recommendations, FEMA provides the appeal decision to the recipient.

6124 ▪ Providing a written decision to the recipient using a method that confirms receipt (through
6125 electronic application systems, return receipt mail, email with read-receipt acknowledgment
6126 or other methods that confirm receipt).

6127 If the decision is to grant the appeal, FEMA headquarters will take the appropriate action.

6128 **C.12.2. BRIC: REQUEST FOR INFORMATION APPEAL**

6129 If additional information is needed, FEMA will determine a date by which the information must be
6130 provided. Within 90 calendar days following the receipt of the requested additional information (or
6131 90 calendar days after the information was due), FEMA will notify the recipient in writing of the
6132 disposition of the appeal.

6133 FEMA generally issues an RFI when it identifies specific documentation or information that if
6134 provided might impact the outcome of the appeal or assist FEMA in adequately responding to the
6135 appeal.

6136 **D. Flood Mitigation Assistance**

6137 This section contains supplemental guidance specific to FMA. If there are any inconsistencies
6138 between the HMA Guide and the applicable Notice of Funding Opportunity (NOFO), then the
6139 requirements in the applicable NOFO prevail.

6140 **D.1. FMA: Eligibility**

6141 FMA is a competitive program. For specific eligibility criteria to receive assistance under FMA, refer to
 6142 the FMA webpage and the FMA NOFO for the year funding is sought. In addition, general eligibility
 6143 and requirements are detailed in [Part 4](#).

6144 **D.1.1. FMA: ELIGIBLE PROPERTIES**

6145 Properties included in a project subapplication for FMA must be insured by the National Flood
 6146 Insurance Program (NFIP) prior to the opening of the application period and be maintained for the
 6147 life of the structure.²⁹⁸ For projects where structures remain (elevation, reconstruction,
 6148 floodproofing, etc.) flood insurance must be maintained through the completion date of the
 6149 mitigation activity and for the life of the structure. For projects where no structures remain
 6150 (acquisition and demolition, relocation, etc.) flood insurance must be maintained until the property is
 6151 purchased by the subrecipient; the structure must be demolished and removed within 90 days of
 6152 settlement.²⁹⁹ Absence of flood insurance where required may be grounds for ineligibility of the
 6153 project and denial of reimbursement or recoupment of grant funds.

6154 Under certain circumstances, properties may be eligible for a federal cost share greater than 75
 6155 percent. Properties must meet one of the criteria outlined below to receive an increased federal cost
 6156 share:³⁰⁰

- 6157 ▪ The property is a severe repetitive loss structure.³⁰¹ In this case, the property is eligible for a
 6158 100 percent federal cost share. A severe repetitive loss structure is a structure that is
 6159 covered under an NFIP policy and has incurred flood-related damage:
 - 6160 ○ For which four or more separate claims payments have been made under flood
 6161 insurance coverage with the amount of each claim (including building and contents
 6162 payments) exceeding \$5,000 and with the cumulative amount of such claims payments
 6163 exceeding \$20,000.
 - 6164 ○ For which at least two separate flood insurance claims payments (building payments
 6165 only) have been made, with the cumulative amount of such claims exceeding the value of
 6166 the insured structure.

²⁹⁸ [44 CFR § 77.6 \(a\)\(2\)](#)

²⁹⁹ [44 CFR § 80.17\(d\)](#)

³⁰⁰ Section 1370 of the National Flood Insurance Act of 1968, Public Law 90-448 (August 1, 1968), as amended; [42 U.S.C. § 4104c\(h\)\(2\)](#)

³⁰¹ [42 U.S.C. § 4104c\(h\)\(3\)](#)

6167 ▪ The property is a repetitive loss structure.³⁰² In this case, the structure is eligible for a 90
 6168 percent cost share. A repetitive loss structure is a structure covered under an NFIP
 6169 policythat:

6170 ○ Has incurred flood-related damage on two occasions, in which the cost of repair, on
 6171 average, equaled or exceeded 25 percent of the value of the structure at the time of
 6172 each such flood event.

6173 ○ At the time of the second incidence of flood-related damage, the contract for flood
 6174 insurance contains increased cost of compliance coverage.

6175 There have been multiple statutory definitions of repetitive loss structures over time. For a structure
 6176 to be eligible for the increased federal cost share for FMA assistance, a property must meet the FMA
 6177 repetitive loss or severe repetitive loss definition in [42 U.S.C. § 4104c\(h\)\(2\), as amended](#).

6178 **D.1.2. FMA: FINANCIAL TECHNICAL ASSISTANCE**

6179 FEMA may provide financial technical assistance to any applicant awarded at least \$1 million
 6180 (federal share) in FMA grants in the prior fiscal year.³⁰³ A technical assistance award cannot exceed
 6181 \$50,000 (federal share) to any single applicant in any fiscal year.

6182 Eligible technical assistance activities may include:

- 6183 ▪ Promoting FMA to communities.
- 6184 ▪ Visiting sites with communities/applicants.
- 6185 ▪ Delivering technical assistance to support mitigation planning.
- 6186 ▪ Developing and reviewing project applications.
- 6187 ▪ Participating in planning meetings.
- 6188 ▪ Providing planning workshops/materials.
- 6189 ▪ Performing Benefit-Cost Analysis and providing grants management workshops/materials.
- 6190 ▪ Funding, in part, salaries and expenses of staff working to develop, review, monitor and close
 6191 FMA awards and subawards.

6192 Essentially, a technical assistance award and a management costs award can achieve many of the
 6193 same objectives. A technical assistance award is meant to allow recipients to maintain a viable FMA

³⁰² [42 U.S.C. § 4121\(a\)\(7\)](#)

³⁰³ [42 U.S.C. § 4104c\(c\)\(3\)\(J\)](#)

6194 program over time. Applicants must ensure activities are not duplicated between the two awards. For
 6195 instance, duplication would exist if a technical assistance award provides assistance for project
 6196 development that the applicant seeks reimbursement for under management costs. Proper record-
 6197 keeping is important to ensure activities are not duplicated.

6198 **D.2. FMA: Available Assistance**

6199 For available assistance under FMA, refer to FEMA’s [“Flood Mitigation Assistance Grant”](#) webpage
 6200 and the NOFO for the year funding is sought.

6201 **D.3. FMA: Assistance Restrictions**

6202 For FMA, the following assistance restrictions apply:

- 6203 ▪ Individual planning awards or subawards using FMA shall not exceed a federal share of
 6204 \$50,000 to any applicant or \$25,000 to any subapplicant.
- 6205 ▪ FMA planning assistance can only be used to create or update a hazard mitigation plan that
 6206 meets the planning criteria outlined in [44 CFR part 201](#) and provides for reduction of flood
 6207 losses to structures for which NFIP coverage is available.

6208 **D.4. FMA: Management Costs**

6209 FEMA may provide financial assistance to reimburse the recipient and subrecipient for eligible and
 6210 reasonable indirect costs, direct administrative costs and other administrative expenses associated
 6211 with a specific mitigation measure or project. Applicants may apply for applicant management costs
 6212 of up to 10 percent of the total FMA application for management of the award and all selected
 6213 subawards.³⁰⁴ Applicants requesting management costs must submit a separate management costs
 6214 subapplication.

6215 Subapplicants may apply for a maximum of five percent of the total funds requested in a
 6216 subapplication for management costs.³⁰⁵ Subapplicants requesting management costs must include
 6217 them as a separate line item in the project or planning subapplication. Additional management costs
 6218 requirements may be found in the NOFO. If any requirements in the HMA Guide conflict with the
 6219 NOFO, the requirements in the NOFO take precedence.

6220 **D.5. FMA: Application Period**

6221 For information regarding the FMA application period, refer to FEMA’s [“Flood Mitigation Assistance](#)
 6222 [Grant”](#) webpage and the NOFO for the year funding is sought.

³⁰⁴ [44 CFR § 77.7\(a\)\(1\)\(i\)](#)

³⁰⁵ [44 CFR § 77.7\(a\)\(1\)\(ii\)](#)

6223 **D.6. FMA: Cost Share**

6224 Consistent with the legislative changes made in the Biggert-Waters Flood Insurance Reform Act of
6225 2012 to the National Flood Insurance Act of 1968, cost share availability under FMA depends on the
6226 type of properties included in the subapplication.³⁰⁶

6227 FEMA’s contributions to the federal share are outlined below:

- 6228 ▪ In the case of mitigation activities to severe repetitive loss structures, FEMA may contribute
6229 in an amount up to either of the following:
- 6230 ○ 100 percent of all eligible costs ifThe activities are technically feasible and cost effective.
- 6231 ○ The expected savings to the National Flood Insurance Fund from expected avoided
6232 damages through acquisition or relocation activities, if the activities will eliminate future
6233 payments from the National Flood Insurance Fund for severe repetitive loss structures
6234 through an acquisition or relocation activity.
- 6235 ▪ In the case of mitigation activities to repetitive loss structures, FEMA may contribute in an
6236 amount up to 90 percent of all eligible costs.
- 6237 ▪ In the case of all other activities, FEMA may contribute in an amount up to 75 percent.

6238 The appropriate year’s NOFO may contain additional information about cost share availability.

6239 Structures with varying cost share requirements can be submitted in one application. Applicants
6240 must provide documentation in the project application showing how the final cost share was derived.
6241 Applicants must enter the final cost share into the electronic application system and attach
6242 documentation to the application showing how the final cost share was derived.

6243 **D.7. FMA: Applicant Ranking of Subapplications**

6244 Applicants must rank each subapplication included in their application in order of priority for
6245 assistance. Each subapplication must be assigned a unique rank in the electronic application
6246 system. Applicants must explain the rank given to each subapplication and demonstrate how it is
6247 consistent with their state or tribal (standard or enhanced) mitigation plan.

6248 **D.8. FMA: Award Selection**

6249 FEMA will identify subapplications for further review based on several criteria including but not
6250 limited to savings to the National Flood Insurance Fund, applicant rank and property status (e.g.,
6251 repetitive loss structure, severe repetitive loss structure). FEMA also may identify a subapplication

³⁰⁶ Public Law 112-141 (July 6, 2012); Public Law 90-448 (August 1, 1968), as amended; [42 U.S.C. § 4104\(d\)](#)

6252 for further review out of rank order based on considerations such as program priorities, available
 6253 assistance and other factors.

6254 FEMA will notify applicants whose subapplications are identified for further review. However, this
 6255 notification and the applicant’s compliance with FEMA-requested pre-award activities are not
 6256 considered notification or guarantee of an award.

6257 **D.9. FMA: Quarterly Progress Reports**

6258 Recipients are required to submit quarterly financial and progress reports to FEMA as a condition of
 6259 their award acceptance throughout the period of performance, including partial calendar quarters, as
 6260 well as for periods where no award activity occurs. Future awards and fund drawdowns may be
 6261 withheld if these reports are delinquent, demonstrate a lack of progress or are insufficient in detail.
 6262 Recipients are also required to submit closeout reports, which consist of the final financial and
 6263 performance reports.

6264 [Table 14](#) describes the Quarterly Progress Report due dates.

6265 **Table 14: FMA Quarterly Progress Report Timing**

Quarter	Quarter Dates	Report Due Dates
1	October 1 – December 31	January 30
2	January 1 – March 31	April 30
3	April 1 – June 30	July 30
4	July 1 – September 30	October 30

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6267 **D.9.1. FMA: FINANCIAL REPORTING REQUIREMENTS**

6268 Recipients must report obligations and expenditures on a quarterly basis through the Federal
 6269 Financial Report to FEMA. Recipients must file the Federal Financial Report electronically. Award
 6270 recipients must submit a Federal Financial Report quarterly throughout the period of performance,
 6271 including partial calendar quarters, as well as for periods where no grant award activity occurs.

6272 **D.9.2. FMA: PROGRESS REPORTING REQUIREMENTS**

6273 Recipients must submit a Quarterly Progress Report to FEMA through the electronic application
 6274 system throughout the period of performance, including partial calendar quarters, as well as for
 6275 periods where no award activity occurs.

6276 Reports are due within 30 calendar days from the end of the first federal quarter, following the initial
 6277 award and thereafter until the award ends.

6278 For more information regarding FMA reporting requirements, see the NOFO.

6279 **D.10. FMA: Failure to Make Federal Award Within Five Years**

6280 Any subapplication not awarded within five years of the date of the application is considered to be
6281 denied. Any assistance amounts allocated for such applications will remain in the National Flood
6282 Insurance Fund and will be made available for future awards.³⁰⁷

6283 **D.11. FMA: Reconsideration**

6284 An eligible applicant/recipient or subapplicant/subrecipient may request a reconsideration of either
6285 of the following actions:

- 6286 ▪ FEMA's denial of its application or subapplication for mitigation activities for which there is
6287 an indication of a substantive technical or procedural error.
- 6288 ▪ A remedy FEMA has taken for noncompliance with federal statutes, regulations or the terms
6289 and conditions of the award, including suspension and termination of the award.³⁰⁸

6290 For more information regarding the FMA reconsideration process, see the applicable NOFO.

6291 **D.11.1. FMA: DENIAL OF APPLICATION OR SUBAPPLICATION**

6292 For denials of applications or subapplications for mitigation activities, the reconsideration request
6293 must identify any substantive technical or procedural error committed by FEMA.

6294 For more information regarding the denial of a FMA application or subapplication, see the applicable
6295 NOFO.

6296 **D.11.2. FMA: DENIAL OF REMEDIES TAKEN FOR NONCOMPLIANCE**

6297 FEMA will reconsider determinations of noncompliance, additional award conditions or its decision to
6298 terminate a federal award. The recipient must send information for reconsideration to FEMA
6299 headquarters within 60 days after receipt of a notice of the action.

6300 A FEMA decision will uphold or overturn a decision regarding an award based on information
6301 provided by the recipient and subrecipient as well as application, award and subaward management
6302 records collected by FEMA. FEMA will notify the recipient of its decision regarding the request for
6303 reconsideration.³⁰⁹

³⁰⁷ [42 U.S.C. § 4104c\(g\)](#)

³⁰⁸ [2 CFR § 200.342](#)

³⁰⁹ [44 CFR § 77.8\(e\)](#)

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HMA Program-Specific Resources

- How a Disaster Gets Declared: <https://www.fema.gov/disasters/how-declared>
- 5 Percent Initiative: <https://www.fema.gov/hmgp-appeal-categories/5-initiative>
- Strategic Funds Management signed memorandum:
https://www.fema.gov/sites/default/files/2020-09/fema_strategic_funds_management_memorandum_06-11-12.pdf
- FEMA job aid: *Public Assistance Reasonable Cost Evaluation – Hazard Mitigation Grant Program Crosswalk* https://www.fema.gov/sites/default/files/2020-07/reasonable-costs-crosswalk_3-23-2020.pdf
- Checklist: *Hazard Mitigation Grant Program Administrative Plan*:
https://www.fema.gov/sites/default/files/2020-10/fema_hazard_mitigation_grant_program_admin_plan_checklist_03-29-19.pdf
- FEMA Program Support Material: *BRIC Direct Technical Assistance*:
<https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities/direct-technical-assistance>
- FEMA Program Support Material: *BRIC Project Scoping Activities*:
<https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities/resources>
- FEMA Program Support Material: *BRIC Partnership Activities*
https://www.fema.gov/sites/default/files/documents/fema_fy21-bric-partnership-activities-psm.pdf

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Part 11. Capability- and Capacity-Building

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A. Hazard Mitigation Planning and Planning-Related Activities

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A.1. Overview of Mitigation Planning

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State, local, tribal and territorial governments rely on Hazard Mitigation Assistance (HMA) planning grants to create a robust mitigation planning process. This process engages partners and stakeholders to identify and implement actions to improve community resilience.

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Hazard mitigation planning is foundational for mitigation and resilience investments. Mitigation plans are strategic documents, updated every five years, to guide hazard mitigation programs to reduce risk over the long-term, such as over the lifespan of a community asset. Mitigation is most effective when it is integrated with comprehensive, long-term community and economic planning before a hazard event occurs.

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The purpose of mitigation planning is to identify state, local, tribal and territorial government policies, programs and actions that can be implemented to reduce risk and future losses, over the long term, from future hazard events. These mitigation policies, programs and actions are identified by assessing natural hazards and their risks to and the vulnerability of people, property, infrastructure and the economy, while involving a wide range of stakeholders in the planning process. The planning process evolves into a comprehensive mitigation strategy that reduces the identified risks. Therefore, the mitigation strategy section of the plan identifies a range of specific mitigation actions and activities. This section includes an action plan describing how identified mitigation activities will be prioritized, implemented and administered.³¹⁰

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In summary, a mitigation plan demonstrates the commitment to reduce risks and vulnerabilities from natural hazards and serves as a strategic guide for a wide range of decision-makers as they commit public or private resources to increasing individual and community resilience.

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Regulations outline the following types of plans for which the Federal Emergency Management Agency (FEMA) has issued mitigation planning guidance:

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³¹⁰ [44 Code of Federal Regulations \(CFR\) § 201.6\(c\)\(3\)\(iii\)](#).

- 6352 ▪ State mitigation plan: [44 Code of Federal Regulations \(CFR\) § 201.4](#); and FEMA Policy [FP](#)
6353 [302-094-2: State Mitigation Plan Review Guide](#) (March 6, 2015) and [State Mitigation](#)
6354 [Planning Policy Guide](#) (April 19, 2022).

- 6355 ▪ Enhanced state mitigation plan: [44 CFR § 201.5](#) and FEMA Policy [FP 302-094-2: State](#)
6356 [Mitigation Plan Review Guide](#) (March 6, 2015) and [State Mitigation Planning Policy Guide](#)
6357 (April 19, 2022).

- 6358 ▪ Tribal mitigation plan: [44 CFR § 201.7](#) and FEMA Policy [FP 306-112-1: Tribal Mitigation Plan](#)
6359 [Review Guide](#) (December 5, 2017).

- 6360 ▪ Enhanced tribal mitigation plan: [44 CFR § 201.5](#), [44 CFR § 201.7](#) and FEMA Policy [FP 306-](#)
6361 [112-1: Tribal Mitigation Plan Review Guide](#) (December 5, 2017).

- 6362 ▪ Local mitigation plan: [44 CFR § 201.6](#); FEMA guidance: [Local Mitigation Plan Review Guide](#)
6363 (October 1, 2011); and FEMA Policy [FP-206-21-0002: Local Mitigation Planning Policy Guide](#)
6364 (April 19, 2022).

6365 To apply for and receive assistance under any HMA program, applicants and subapplicants generally
6366 must have a FEMA-approved mitigation plan that meets the regulatory and mitigation policy
6367 requirements.³¹¹

6368 In addition to having a mitigation plan that meets the requirements, states and tribes may develop
6369 enhanced plans. To obtain enhanced plan status, states and tribes must demonstrate to FEMA the
6370 ability to develop and implement a comprehensive approach to mitigation, the ability to effectively
6371 use available resources to reduce risks and increase resilience, and the capability to manage
6372 increased Hazard Mitigation Grant Program (HMGP) assistance.

6373 HMA programs also provide assistance for planning-related activities. Planning-related activities
6374 assist state, local, tribal and territorial governments in updating their mitigation strategies after a
6375 disaster, enhancing the current plan with new data or information, delivering planning-related
6376 training, adopting land use ordinances to increase resilience, and integrating mitigation plans into
6377 other planning efforts.

6378 **A.2. Mitigation Planning Process**

6379 To obtain assistance under any HMA program, state, local, tribal and territorial governments must
6380 generally have a FEMA-approved hazard mitigation plan.³¹²

6381 The purpose of mitigation planning is for state, local and tribal governments to identify the natural
6382 hazards that impact them and actions and activities to reduce any losses from those hazards as well

³¹¹ [44 CFR § 201.4\(a\)](#), [44 CFR § 201.6\(a\)](#), [44 CFR § 201.7\(a\)](#); (as applicable), and [44 CFR § 206.434\(b\)](#)

³¹² [44 CFR § 206.434\(b\)](#).

6383 as establish a coordinated process to implement the plan, taking advantage of a wide range of
 6384 resources.³¹³ Identifying risks and developing broad long-term strategies for protecting people and
 6385 property from future events is key in breaking the cycle of disasters and repeated damages.
 6386 Regulations addressing hazard mitigation plans can be found at [44 CFR part 201](#).

6387 The mitigation planning process varies from jurisdiction to jurisdiction, but regardless of the plan
 6388 type, a state, local, tribal or territorial mitigation plan development/update process comprises the
 6389 following four phases.

6390 **A.2.1. ASSEMBLE RESOURCES**

6391 A state, local, tribal or territorial government may organize needed planning resources for a
 6392 successful mitigation planning process, such as securing technical expertise; defining the planning
 6393 area; and identifying key individuals, agencies, neighboring jurisdictions, businesses or other
 6394 stakeholders to participate in the process.

6395 Stakeholder engagement during plan development can provide important information about
 6396 community needs and have significant impacts on proposed actions for HMA applications or
 6397 subapplications. State, local, tribal and territorial governments are encouraged to include
 6398 representatives of the whole community in planning and scoping the project to gain broad
 6399 community participation and support. Building on existing community networks can also be critical
 6400 for generating broad support for future, specific mitigation activities.

6401 During this phase, it is important to define the planning area including identifying assets that may be
 6402 outside of jurisdictional boundaries but should be taken into consideration in the planning process
 6403 (e.g., a drinking water reservoir owned by a city but located in another jurisdiction).

6404 **A.2.2. ASSESS RISKS**

6405 The state, local, tribal or territorial government may then assess risks by identifying the
 6406 characteristics and potential consequences of hazards. It is important to understand what
 6407 geographic areas each hazard might impact and what people, property or other assets might be
 6408 vulnerable. A risk assessment generally consists of hazard identification, hazard profiles, asset
 6409 inventory and an estimation of potential human and economic losses based on the exposure and
 6410 vulnerability of people, buildings and infrastructure.

6411 **A.2.3. DEVELOP A MITIGATION STRATEGY**

6412 The state, local, tribal or territorial government may develop a long-term mitigation strategy for
 6413 avoiding or minimizing the effects of disasters. Based on public input and identified risks,
 6414 communities develop mitigation goals and objectives as part of a strategy for mitigating hazard-
 6415 related losses. The strategy is a community’s approach for implementing mitigation activities that are

³¹³ [44 CFR § 201.1\(b\)](#)

6416 cost-effective, technically feasible and environmentally sound as well as allowing strategic
 6417 investment of limited resources. The strategy is grounded in the jurisdiction’s unique set of
 6418 regulatory, administrative and financial capabilities to undertake mitigation. The mitigation strategy
 6419 also includes a description of how the mitigation actions will be implemented and administered.
 6420 Mitigation goals and objectives should be broad and inclusive of the community’s mitigation
 6421 priorities. These priorities may require updating during the five-year planning period because of
 6422 changes to risk and vulnerability including effects of a disaster.

6423 **A.2.4. ADOPT AND APPROVE THE HAZARD MITIGATION PLAN**

6424 The next step in the process is the adoption and implementation of the hazard mitigation plan. The
 6425 hazard mitigation plan must be approved and adopted by the jurisdiction or tribe, and then
 6426 forwarded by the state or tribe to FEMA for review and approval.³¹⁴ Under a Program Administration
 6427 by States (PAS) agreement with FEMA, some states have been delegated local plan approval;
 6428 however, FEMA still issues an approval letter after the state notifies the agency that they have
 6429 approved the plan. If an HMA subaward was used to develop or update the plan, failure to adopt the
 6430 plan may result in disallowance of the costs. Once FEMA approves the plan, it can be used to
 6431 implement hazard mitigation actions and obtain HMA for specific activities.

6432 **A.2.5. IMPLEMENT AND MAINTAIN THE HAZARD MITIGATION PLAN**

6433 The applicant or subapplicant should use the mitigation plan to facilitate the development of
 6434 mitigation action alternatives using FEMA and other assistance sources. Incorporating these
 6435 considerations from the mitigation plan into the scoping process for potential mitigation activities
 6436 funded by HMA increases the efficiency of program review and ensures that all HMA program
 6437 requirements are met. The mitigation strategy is the starting point for subapplicants to identify
 6438 current needs and potential mitigation activities as discussed in the following steps.

6439 To ensure success, the plan must remain a relevant, living document through routine maintenance.
 6440 The state, local, tribal or territorial government needs to conduct periodic evaluations to assess
 6441 changing risks and priorities and make revisions as needed. For more information, see FEMA’s
 6442 [“Hazard Mitigation Planning”](#) webpage.

6443 Communities should keep their plans up to date. HMA funding can be used to update plans. When
 6444 developing an HMA subapplication for a hazard mitigation plan update, the subapplicant or applicant
 6445 should reference prior FEMA-approved mitigation plans and the Mitigation Plan Review Tool for areas
 6446 and suggestions on improvement in the next update cycle. The subapplicant should consider
 6447 scheduling time with the state, local, tribal or territorial official and/or FEMA planner to discuss the
 6448 appropriate scope needed for the update based on changes in development, risk and past disaster
 6449 activity.

³¹⁴ [44 CFR § 201.3\(b\)](#)

6450 For more information on innovative and emerging partnerships in mitigation, see FEMA’s [“Guides to](#)
6451 [Expanding Mitigation” webpage](#).

6452 **A.3. Eligibility**

6453 **A.3.1. ELIGIBLE ACTIVITIES**

6454 Two types of planning activities may be eligible for HMA:

6455 1. New plan creation or plan updates.

6456 2. Planning-related activities.

6457 The creation of a new plan and the update of an existing plan are eligible activities under HMGP,
6458 HMGP Post Fire, BRIC and FMA. For the purpose of Flood Mitigation Assistance (FMA), however,
6459 there are additional restrictions that are outlined below.

6460 Planning-related activities are eligible under HMGP, Hazard Mitigation Grant Program Post Fire
6461 (HMGP Post Fire) and Building Resilient Infrastructure and Communities (BRIC). Activity eligibility
6462 under BRIC is established annually through the publication of a Notice of Funding Opportunity
6463 (NOFO). If any information in this document conflicts with the NOFO, the information in the NOFO will
6464 take precedence.

6465 **A.3.1.1. New Plan Creation and Plan Updates**

6466 A planning subaward for a new or updated mitigation plan must result in a mitigation plan adopted
6467 by the jurisdiction(s) and approved by FEMA, consistent with the regulatory requirements in [44 CFR](#)
6468 [part 201](#) and [44 CFR part 206](#) and applicable mitigation planning regulations and policy.

6469 For FMA, a plan must provide for reduction of flood losses to structures for which National Flood
6470 Insurance Program (NFIP) coverage is available. Additionally, FEMA will only provide assistance if the
6471 community seeking the assistance is participating in the NFIP.

6472 **A.3.1.2. Planning-Related Activities**

6473 State, local, tribal and territorial governments with a current FEMA-approved hazard mitigation plan
6474 are eligible to apply for assistance for planning-related activities under HMGP, HMGP Post Fire or
6475 BRIC. To expedite and strengthen the effectiveness of hazard mitigation implementation across the
6476 country, FEMA supports a variety of planning-related activities through HMGP, HMGP Post Fire and
6477 BRIC. This assistance for planning-related activities provides flexibility to further reduce risk and
6478 integrate hazard mitigation and resilience principles into other types of ongoing planning and
6479 development activities, such as making land use ordinances and building codes more disaster
6480 resilient.

6481 Under HMGP, HMGP Post Fire and BRIC, eligible mitigation planning-related activities include:

- 6482 ■ Updating or improving sections of the current FEMA-approved mitigation plan, such as:
 - 6483 ○ Updates to the risk and vulnerability assessment based on new, targeted information.
6484 This new information may come from supporting studies, such as an economic analysis,
6485 or from incorporating data available from Risk Mapping, Assessment, and Planning (Risk
6486 MAP); FEMA; or other federal agencies.
 - 6487 ○ Strengthening the mitigation strategy by incorporating actions to reduce vulnerabilities
6488 over the long term as well as linking proposed actions to available assistance, such as:
 - 6489 – Public Assistance (PA).
 - 6490 – HMA.
 - 6491 – U.S. Department of Housing and Urban Development Community Development Block
6492 Grants assistance.
 - 6493 – U.S. Environmental Protection Agency loans and assistance.
 - 6494 – National Oceanic and Atmospheric Administration Coastal Zone Management.
 - 6495 – Economic Development Administration Comprehensive Economic Development
6496 Strategy.
 - 6497 – State assistance.
 - 6498 – Private investments, such as from utilities and other lifelines.
 - 6499 ○ Incorporating climate adaption, form-based design and land use development, resilience,
6500 historic properties and cultural resources information.
 - 6501 ○ Incorporating disadvantaged, vulnerable and/or underserved populations with unique
6502 needs, such as economic, disability and/or language considerations, into the planning
6503 process, risk assessment and/or mitigation strategy.
 - 6504 ○ Incorporating information into the mitigation plan to gain certification under the
6505 Emergency Management Accreditation Program.
 - 6506 ○ Integrating mitigation planning with flood management planning to gain credit under the
6507 NFIP Community Rating System (CRS).
 - 6508 ○ Developing evaluation criteria, measures and indicators to track mitigation progress to
6509 lower risk.

- 6510 ▪ Integrating information from state, tribal, or local mitigation plans (specifically risk
6511 assessment or mitigation strategies), with other planning efforts, and integrating information
6512 from other plans into state, tribal, or local mitigation plans, such as:
 - 6513 ○ Disaster recovery strategy (pre- or post-disaster), preparedness or response plans,
6514 including disaster recovery plans to protect cultural, artistic and historic resources.
 - 6515 ○ Comprehensive plans (e.g., land use, master, sustainability, economic development).
 - 6516 ○ Resilience strategy.
 - 6517 ○ Climate adaptation plans.
 - 6518 ○ Capital improvement or economic development plans.
 - 6519 ○ Resource management/conservation plans (e.g., stormwater, open space).
 - 6520 ○ Other long-term community planning initiatives (e.g., transportation, housing, education,
6521 recreation, landmark and heritage, redevelopment, drought and/or wildfire).
- 6522 ▪ Building capability through delivery of technical assistance and training by:
 - 6523 ○ Introducing officials, leaders, staff, residents, cultural stewards and other stakeholders to
6524 hazard mitigation and disaster recovery planning, including train-the-trainer activities.
 - 6525 ○ Increasing understanding of financial tools that can be used to implement mitigation
6526 measures and develop a financing strategy (e.g., tax increment financing, coordinated
6527 infrastructure financing or historic tax credits).
 - 6528 ○ Helping communities incorporate nature-based/“green” approaches into mitigation
6529 actions.
 - 6530 ○ Providing communities with information on viable adaption approaches to prevent future
6531 losses to homes, businesses and infrastructure and to preserve historic and cultural
6532 resources.
- 6533 ▪ Evaluating adoption and/or implementing ordinances and development code, zoning code,
6534 form-based codes, subdivision code, etc. that reduce risk and/or increase resilience to future
6535 hazards by:
 - 6536 ○ Promoting flexibility and adaptation approaches to protect historic and cultural
6537 resources.
 - 6538 ○ Evaluating current and future built environment to assess risks and vulnerabilities.
- 6539 ▪ Integrating information from mitigation plans with climate adaption planning efforts, such as:

- 6540 ○ Developing climate adaption plans to be used as a strategic and guiding framework to
6541 evaluate and implement actions to support climate adaption.
- 6542 ○ Developing a managed retreat strategy.
- 6543 ○ Developing or updating post-disaster recovery and redevelopment plans to incorporate
6544 climate adaption considerations.
- 6545 ○ Developing or updating long-range transportation or utility plans to assess asset
6546 protection, design modifications, assess relocation and realignment, or infrastructure
6547 disinvestment.
- 6548 ○ Developing wetland migration plans to conserve, protect or restore ecosystems in
6549 response to rising sea levels.
- 6550 ○ Evaluating opportunities for other property acquisition tools such as conservation land
6551 trusts, leasebacks, land swaps and life estates.
- 6552 ○ Evaluating adoption and/or regulatory tools such as living shorelines, setbacks and
6553 buffers, development permit conditions and zoning and overlay zones.
- 6554 ○ Evaluating market-based tools such as transfer of development rights.
- 6555 Information dissemination activities, including public awareness and education, are generally eligible
6556 as a percentage of a subapplication.

6557 **A.3.1.3. Ineligible Activities**

6558 The following activities are not eligible as mitigation planning or planning-related activities:

- 6559 ■ Hazard identification or mapping and related equipment to implement mitigation
6560 activities.³¹⁵
- 6561 ■ Geographic information system software, hardware and data acquisition whose primary aim
6562 is mitigation activity.³¹⁶
- 6563 ■ Stand-alone public awareness or education campaigns about mitigation.³¹⁷

³¹⁵ Eligible under the HMGP 5 Percent Initiative

³¹⁶ Eligible under the HMGP 5 Percent Initiative

³¹⁷ Eligible under the HMGP 5 Percent Initiative and BRIC Capability- and Capacity-Building

6564 ▪ Project scoping or subapplication development activities such as Benefit-Cost Analysis,
6565 engineering feasibility studies, subapplication development, construction design or
6566 environmental and historic preservation (EHP) data collection.³¹⁸

6567 ▪ Activities not resulting in a clearly defined product or products.

6568 **A.3.1.4. Funding Restrictions**

6569 **A.3.1.4.1. HMGP and HMGP Post Fire 7 Percent Planning Funding**

6570 FEMA supports a variety of planning and planning-related activities through HMGP and HMGP Post
6571 Fire. In addition to hazard mitigation plans, this assistance is available for planning-related activities
6572 and provides flexibility to state, tribal and local governments to reduce risk and integrate hazard
6573 mitigation principles into planning for resilience.

6574 The state responsibilities for planning activities are outlined in [44 CFR § 201.3\(c\)](#). The provision
6575 specifies that up to seven percent of a recipient’s HMGP or HMGP Post Fire assistance can be used
6576 for mitigation planning under [44 CFR § 206.434](#). Within this percentage, there are no limits on the
6577 dollar value of the planning-related activity or the number of planning activities that can be
6578 submitted.

6579 **A.3.1.4.2. Building Resilient Infrastructure and Communities and Flood Mitigation Assistance 6580 Funding Restrictions**

6581 BRIC and FMA may have funding restrictions for planning and planning-related activities. Refer to the
6582 award year BRIC or FMA NOFO for more information.

6583 **A.4. Application and Submission Information**

6584 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
6585 should have a scoping narrative in accordance with [Part 6](#). Specific criteria for mitigation planning
6586 subapplications are highlighted below.

6587 FEMA may request additional information after the subapplication has been submitted to ensure all
6588 necessary information is received. However, all information required by the regulations and the
6589 guidance must be received before an assistance decision and award or final approval can be made.

6590 **A.4.1. SCOPE AND SCHEDULE FOR NEW PLAN CREATION OR PLAN UPDATES**

6591 The subapplication must:

³¹⁸ Eligible as project scoping/advance assistance activities under HMGP, HMGP Post Fire, BRIC and FMA.

6592 ▪ Include a statement that the deliverable will be a FEMA-approved hazard mitigation plan that
6593 complies with the regulatory requirements at [44 CFR part 201](#) and [44 CFR part 206](#).

6594 ▪ Use applicable state, local or tribal mitigation planning guidance to determine the specific
6595 requirements for new plans and plan updates regarding the planning process; hazard
6596 identification and risk assessment; mitigation strategy; plan review, evaluation and
6597 implementation; and plan adoption.

6598 ▪ Include the scope of work and schedule that explains how a subapplicant will organize and
6599 execute the planning process, including how to engage with stakeholders and the public, if
6600 applicable. Generally, the scope of work also explains the planning team’s role, identifies
6601 stakeholders, explains public outreach (as applicable for local and tribal governments) and
6602 specifies whether the subapplicant expects to use contract support.

6603 The following elements must be included in the scope of work for planning grants for subapplications
6604 seeking to create or update a new or existing plan:

6605 ▪ **Description of previous planning efforts:** Describes past mitigation plans and mitigation
6606 efforts to identify priorities for plan updates. The FEMA plan review tool from the previous
6607 plan should be included as an attachment.

6608 ▪ **Description of planning area:** Describes the planning area, including any noncontiguous land
6609 holdings or assets and demographics. The description must include the number and names
6610 of participating governments, private nonprofits, or other partners. Planning areas may
6611 include governments, such as states, territories, tribal lands, cities, townships, counties or
6612 other districts. Planning areas may also be defined by watersheds or other natural features.
6613 Planning areas can crossover or encompass other jurisdictions, such as a fire protection
6614 district or a utility district.

6615 ▪ **List of jurisdictions participating in plan:** Lists each community that will participate in the plan
6616 and seek plan approval. A written commitment from each jurisdiction seeking plan approval
6617 will be required before assistance is obligated.

6618 ▪ **Public and stakeholder engagement plan:** Provides an outreach and engagement plan that
6619 describes the opportunity for the public and stakeholders to be involved in the planning
6620 process. The plan must include required meetings and public comment periods. The
6621 outreach and engagement plan must account for the time needed to incorporate public and
6622 stakeholder feedback into the plan. If the subapplicant plans to conduct a public survey, the
6623 scope of work should describe the intent and value of the survey, how the results will be
6624 used and who the target audience is.

6625 ▪ **Planning process:** Provides a stakeholder and public engagement strategy that describes the
6626 planning process to engage stakeholders and the public. The description must explain the
6627 planning team’s proposed role, provide the anticipated number of planning team meetings,
6628 identify stakeholders and explain public outreach.

- 6629 ▪ **Available data and risk assessment process:** Describes the planning team’s process to
6630 research, collect, analyze and summarize hazard and risk data. The plan must include a
6631 description of the natural hazards that can affect the planning area. Man-made hazards may
6632 be included in the plan but are not required and will not be reviewed to meet plan
6633 requirements.

- 6634 ○ FEMA encourages states, tribes and territories to consider how they can create
6635 efficiencies, such as sharing relevant and scalable data and analysis with local
6636 governments to reduce costs, avoid the duplication of effort, and allow for the planning
6637 efforts to focus on mitigation strategy development. Subapplicants should generally
6638 coordinate with the state and FEMA to make use of existing data and risk assessments
6639 when developing or updating a mitigation plan.

- 6640 ○ Applicants and subapplicants should:
 - 6641 – Describe the number of natural hazards that will be profiled.

 - 6642 – If the subapplicant is completing a plan update, include a description of the data
6643 gaps and deficiencies the subapplicant is looking to fill in the updated risk
6644 assessment. If the subapplicant plans to generate new data, the subapplicant should
6645 explain the use of the new data and the value the new data will add to the plan.
6646 Explain how the new data will build a better risk assessment and mitigation strategy
6647 and describe where the source data will come from (including federal and non-
6648 federal sources) and how it will be processed.

 - 6649 – Ensure the scope of work narrative includes a description of any known data sources,
6650 such as FEMA Risk MAP flood maps, to be used in the risk assessment. If the
6651 subapplicant relies on state plan data, the subapplicant should explain why the
6652 subapplicant does so. Similarly, if the subapplicant intends to develop new risk data,
6653 the subapplicant must describe the proposed process and sources.

 - 6654 – Include an explanation of any geographic information system mapping and analysis
6655 needs for the plan.

 - 6656 – If the subrecipient intends to use FEMA’s Hazus model or other geographic
6657 information system software to support assessing vulnerability, explain the proposed
6658 level of analysis and describe how this enhanced analysis will add value to the plan
6659 in the planning narrative.

- 6660 ○ For local and tribal governments, if a community is participating or has participated in the
6661 Risk MAP process recently, the subapplicant must describe how the community plans to
6662 incorporate or upgrade the results of Risk MAP into the mitigation planning process. This
6663 might not apply to state plan updates.

- 6664 ▪ **Development of capabilities assessment:** Describes the process to develop strategies to
6665 address issues, challenges and obstacles jurisdictions face within given capabilities to
6666 deliver an effective mitigation program, including existing plans, programs, ordinances and
6667 policies that support long-term risk reduction efforts.
- 6668 ▪ **Development of mitigation strategy:** Describes the process to develop a mitigation strategy
6669 for each participating jurisdiction based on the risk assessment completed for the plan. For
6670 state mitigation plans, this narrative can include Coordination of Local Mitigation Planning,
6671 Severe Repetitive Loss Strategy and the Comprehensive State Hazard Mitigation Planning
6672 program. The process should include:
- 6673 ○ An explanation of how the subapplicant intends to gather information on the status of
6674 previous mitigation actions.
- 6675 ○ A status report on all the previously prioritized mitigation actions if the plan is being
6676 updated. Further, the plan must include an evaluation and prioritization of new mitigation
6677 actions identified since the previous plan was approved.
- 6678 ▪ **Plan implementation, maintenance and evaluation:** Describes how the plan will be used to
6679 carry out actionable projects identified in the plan and the process to develop an
6680 implementation/maintenance and evaluation plan/strategy.
- 6681 ▪ **Plan adoption:** Describes the plan drafting process, including state and FEMA reviews,
6682 adoption by participating jurisdictions, and final approval by FEMA or the state, tribe or
6683 territory, as applicable, under the PAS delegation of local plan approval authority.
- 6684 ▪ **Schedule:** Outlines the time frame, which should match all tasks noted in the scope of work.
6685 If a proposed activity is a new or updated mitigation plan, the schedule should include tasks
6686 for draft review. It should also allow sufficient time for the state, tribe or territory and FEMA
6687 reviews; preparation of required revisions, if needed; formal adoption by the jurisdiction(s);
6688 and FEMA approval within the period of performance.
- 6689 ▪ **Deliverables, tasks and schedule:** Describes the deliverables for a new or updated FEMA-
6690 approved mitigation plan consistent with mitigation planning regulations for state,³¹⁹ local³²⁰
6691 or tribal³²¹ governments as well as the applicable mitigation planning guidance. See FEMA’s
6692 [“Hazard Mitigation Planning”](#) webpage for additional information on state, local and tribal
6693 mitigation planning.
- 6694 If communities participate in the NFIP and/or CRS, the scope of work should account for the level of
6695 effort needed to capture information related to NFIP and CRS compliance. CRS communities may

³¹⁹ [44 CFR § 201.4](#) or [44 CFR § 201.5](#)

³²⁰ [44 CFR § 201.6](#)

³²¹ [44 CFR § 201.7](#) or [44 CFR § 201.5](#)

6696 receive additional points for having an adopted hazard mitigation plan; points can be maximized by
 6697 undertaking the additional tasks prescribed for each mitigation planning phase. More details can be
 6698 found in [FIA-15/2017: National Flood Insurance Program Community Rating System Coordinator’s](#)
 6699 [Manual \(2017\)](#), the [Addendum to the 2017 CRS Coordinator’s Manual \(2021\)](#) and in the [Local](#)
 6700 [Mitigation Planning Handbook \(March 2013\)](#) (specifically, see Appendix A, Worksheet 1.1).

6701 **A.4.2. SCOPE AND SCHEDULE FOR PLANNING-RELATED ACTIVITIES**

6702 Planning-related activities are not required to result in a FEMA-approved mitigation plan. Instead,
 6703 planning-related activities are intended to advance mitigation and resilience outcomes.

6704 In general, a subapplication must describe the deliverable for the proposed activities in the planning
 6705 narrative. The planning narrative explains how a subapplicant will organize and execute the planning-
 6706 related activity. Generally, the narrative also explains the planning team’s role, identifies
 6707 stakeholders, explains public outreach, and specifies whether the subapplicant expects to use
 6708 contract support.

6709 A planning-related activity scope of work should include the following items:

- 6710 ▪ **Tasks:** The subapplicant must describe the tasks needed to accomplish the proposed activity
 6711 as well as any procurement that would be required.

- 6712 ▪ **Alignment with current mitigation plans:** The scope of work must describe how the proposed
 6713 activity aligns with the current mitigation plan or how mitigation plan information will be
 6714 incorporated into other planning-related activities.

- 6715 ▪ **Public and stakeholder engagement:** The scope of work must identify the outreach and
 6716 engagement plan (if applicable to the activity). The narrative should account for the time and
 6717 effort it may take to incorporate public and stakeholder feedback.

- 6718 ▪ **Goals:** The scope of work must include the goals of the planning-related activity and identify
 6719 specific deliverables that will be completed by the activity.

- 6720 ▪ **Implementation strategy:** The scope of work must outline the steps the subapplicant will
 6721 follow to implement planning-related activities and to complete the proposed deliverables.
 6722 This information should include a project schedule.

- 6723 ▪ **Deliverables, tasks and schedule:** The narrative must describe the deliverables for any
 6724 mitigation planning-related activities eligible under HMGP, HMGP Post Fire and BRIC that
 6725 enhance an existing mitigation plan consistent with mitigation planning regulations for state
 6726 ([44 CFR § 201.4](#) or [44 CFR § 201.5](#)), tribal ([44 CFR § 201.7](#) or [44 CFR § 201.5](#)) or local
 6727 governments ([44 CFR § 201.6](#)) as well as the applicable mitigation planning guidance. See
 6728 FEMA’s [“Hazard Mitigation Planning”](#) webpage for additional information on state, tribal and
 6729 local mitigation planning.

6730 **A.4.3. COSTS**

6731 **A.4.3.1. Allowable Costs**

6732 Allowable costs for hazard mitigation planning and planning-related activities include:

- 6733 ▪ **Pre-award costs to prepare a subapplication:** Pre-award costs to prepare a subapplication
6734 must be included as management costs. Pre-award costs must be reasonable and identified
6735 in the budget to be considered eligible incurred costs.
- 6736 ▪ **Training:** Applicable training costs for the planning team to travel to and attend applicable
6737 training.
- 6738 ▪ **In-kind staff time:** Subapplications should identify all in-kind staff time, including costs
6739 incurred to support plan coordination and outreach. In-kind costs can be applied to meet the
6740 non-federal match, which is up to 25 percent of the total cost of the plan. Timesheets will be
6741 required at closeout to document expenses.

6742 **A.4.3.2. Unallowable Costs**

6743 Assistance may be subject to statutory limits (assistance restrictions) on planning and management
6744 costs as described in previous sections. Under planning and planning-related subawards, the
6745 following costs are not eligible:

- 6746 ▪ Data that is publicly available for free.
- 6747 ▪ Engineering or design costs.
- 6748 ▪ Other costs for implementing plans.
- 6749 ▪ Costs that may be part of another technical assistance, project scoping, advance assistance,
6750 or codes and standards subaward.

6751 **A.4.3.3. Budget**

6752 Budgets should be supported with documentation. Budgets must include detailed estimates of
6753 various cost item categories such as labor, materials, equipment and subcontractor costs. Lump-
6754 sum estimates are not acceptable. Subapplicants should provide a record of all documents used to
6755 develop the budget and a budget narrative that describes how each cost item in the budget was
6756 derived.

6757 FEMA requires an itemized budget that is reasonable and cost beneficial and corresponds to the
6758 schedule. The itemized budget should be added as an attachment to the subapplication.

6759 Budgets should include:

- 6760 ▪ An accounting for the entire period of performance to produce the plan or planning-related
6761 activity and include enough time for state and FEMA review, potential revisions and plan
6762 adoption, including grants management activities required for closing out the subaward.

- 6763 ▪ An accounting for any special studies or additional assistance needed to support an
6764 enhanced analysis and data that will be included as part of the plan or planning-related
6765 activity.

- 6766 ▪ Data research and collection, including eligible mapping activities or risk assessment.

- 6767 ○ If Hazus is used for flood, earthquake or hurricane risk assessments, the subapplicant
6768 should include costs for user defined/provided hazard and inventory data.

- 6769 ▪ A mitigation strategy development and prioritization.

- 6770 ▪ Professional development training, tuition and travel costs, if applicable.

- 6771 ▪ Costs related to plan drafting, state and FEMA review, revisions, and final production and
6772 distribution.

- 6773 ▪ Public outreach and stakeholder coordination efforts.

- 6774 ▪ Management costs, which are indirect costs and administrative expenses anticipated during
6775 plan development.

- 6776 ○ The amounts, allowable uses and procedures to request management cost assistance
6777 vary by HMA program. See [Part 10](#) for more information.

- 6778 ▪ Supportive documentation, such as contractor estimates, that should demonstrate a clear
6779 understanding of the scope of work, limitations and final outcomes of the plan.

- 6780 ○ If the estimate is based on carefully thought-out assumptions, it will have factored in
6781 many of the changes that come after the grant is awarded.

6782 **A.5. Subaward Implementation**

6783 **A.5.1. PROGRAM REPORTING AND MONITORING**

6784 Post-award monitoring helps ensure that subapplicants/subrecipients are achieving the objectives of
6785 the federal award consistent with the performance goals and milestones described in the subaward.

6786 To assist the recipient in monitoring plan creation, updates or planning-related activities, the
6787 following milestone information or events (if appropriate) should be included in Quarterly Progress
6788 Reports:

- 6789 ▪ If the subrecipient is acquiring contract support, the subrecipient should report when the
6790 request for proposal is completed, when the contract is out for bid, when the bid period
6791 closes, when proposals are reviewed, when the contractor is selected and the date of the
6792 kickoff meeting.

- 6793 ▪ Public meetings and/or public comment periods that have been planned or completed.

- 6794 ▪ Planning team meetings that have been planned or completed.

- 6795 ▪ For state, local and tribal plans, when the data collection and risk assessment was started
6796 and completed, and when the mitigation strategy and action plan was started and
6797 completed.

- 6798 ▪ Subrecipient’s intent to submit plan for review at least 90 calendar days prior to submission.

- 6799 ▪ When participating communities have adopted the plan, if plan adoption is delayed, or if the
6800 participating community notifies the subrecipient that they do not intend to adopt the plan.

- 6801 ▪ Any other milestones that have been identified in the subapplication, agreed to or that are
6802 required by the recipient.

6803 **A.5.2. BUDGET AND SCOPE CHANGE**

6804 All budget and scope changes must have prior FEMA approval, consistent with [Part 8](#).

6805 Recipients are required to complete all elements in the scope of work submitted with the
6806 subapplication. Prior approval from FEMA is required for the following:³²²

- 6807 ▪ When a subrecipient wants to change the scope of work or the objective of the planning
6808 activity (change in key personnel managing the project; change in the level of effort or
6809 proposed detail of the risk/vulnerability assessment, mapping, mitigation strategy or action
6810 plan; change in outreach activities; or a change in deliverable).

- 6811 ▪ For creation and updates to plans, when a participating community identified in the scope of
6812 work chooses not to adopt the plan.

- 6813 ▪ When a subrecipient wants to change a key person identified in the subapplication.

- 6814 ▪ When there is a 25 percent reduction in time devoted to the project or disengagement from
6815 the project for more than three months.

- 6816 ▪ Inclusion of costs not included in the approved budget.

³²² [2 CFR § 200.308\(c\)](#)

- 6817 ▪ The transfer of assistance between cost categories for participant support costs.³²³

6818 **A.6. Closeout**

6819 Recipients and subrecipients must close out activities in a timely manner consistent with [Part 9](#).

6820 The recipient should provide a statement showing all the work in the approved scope of work has
 6821 been completed. For planning-related activities under HMGP, 100 percent work completion is also
 6822 when all work within the approved scope of work is complete.

6823 For the creation and update of mitigation plans, the plan must be adopted by all participating
 6824 jurisdictions and all work in the approved scope of work (such as data analysis) must be completed.
 6825 The recipient must provide a list of jurisdictions that are part of the multi-jurisdictional plan and
 6826 indicate if the jurisdictions have or have not adopted the FEMA-approved plan.

6827 For mitigation-related activities, the recipient should provide a statement showing that all the work in
 6828 the approved scope of work and the deliverable(s) were completed.

6829 This information can be included in the body of the closeout letter.

6830  **Hazard Mitigation Planning Resources**

- 6831 ▪ Hazard Mitigation Planning: [https://www.fema.gov/emergency-managers/risk-](https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning)
 6832 [management/hazard-mitigation-planning](https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning)
- 6833 ▪ FEMA “Create a Hazard Mitigation Plan” webpage (with links to state, local and tribal plan
 6834 guides): [https://www.fema.gov/emergency-managers/risk-](https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning/create-hazard-plan)
 6835 [mitigation-planning/create-hazard-plan](https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning/create-hazard-plan)
- 6836 ▪ *State Mitigation Planning Policy Guide*:
 6837 [https://www.fema.gov/sites/default/files/documents/fema_state-mitigation-planning-](https://www.fema.gov/sites/default/files/documents/fema_state-mitigation-planning-policy-guide_042022.pdf)
 6838 [policy-guide_042022.pdf](https://www.fema.gov/sites/default/files/documents/fema_state-mitigation-planning-policy-guide_042022.pdf)
- 6839 ▪ *Local Mitigation Planning Policy Guide*:
 6840 [https://www.fema.gov/sites/default/files/documents/fema_local-mitigation-planning-](https://www.fema.gov/sites/default/files/documents/fema_local-mitigation-planning-policy-guide_042022.pdf)
 6841 [policy-guide_042022.pdf](https://www.fema.gov/sites/default/files/documents/fema_local-mitigation-planning-policy-guide_042022.pdf)
- 6842 ▪ *Local Mitigation Planning Handbook*: [https://www.fema.gov/sites/default/files/2020-](https://www.fema.gov/sites/default/files/2020-06/fema-local-mitigation-planning-handbook_03-2013.pdf)
 6843 [06/fema-local-mitigation-planning-handbook_03-2013.pdf](https://www.fema.gov/sites/default/files/2020-06/fema-local-mitigation-planning-handbook_03-2013.pdf)
- 6844 ▪ Guides to Expanding Mitigation: [https://www.fema.gov/about/organization/region-](https://www.fema.gov/about/organization/region-2/guides-expanding-mitigation)
 6845 [2/guides-expanding-mitigation](https://www.fema.gov/about/organization/region-2/guides-expanding-mitigation)

³²³ [2 CFR § 200.1](#)

- 6846
- 6847
- 6848
- 6849
- 6850
- Mitigation Planning Regulations and Guidance: <https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning/regulations-guidance>
 - *CRS Coordinator’s Manual*:
https://www.fema.gov/sites/default/files/documents/fema_community-rating-system_coordinators-manual_2017.pdf

6851 B. Project Scoping/Advance Assistance

6852 B.1. Overview

6853 Project scoping/advance assistance activities are designed to bridge the gap in the level of detail
6854 between the actions contained in the current FEMA-approved hazard mitigation plan and project
6855 subapplications. Project scoping/advance assistance activities are also designed to obtain data to
6856 complete HMA subapplications in a timely manner, resulting in either an improvement in the
6857 capability to identify appropriate mitigation projects or in the development of an application-ready
6858 mitigation project.

6859 Project scoping and advance assistance refer to the same activities. However, under HMGP and
6860 HMGP Post Fire, the guidance refers to the term “advance assistance” to align with program
6861 statutes. The name change of this activity for BRIC and FMA was made to align with the purpose of
6862 this project type and provide clarity.

6863 Advance assistance is authorized by section 404(e)³²⁴ of the Robert T. Stafford Disaster Relief and
6864 Emergency Assistance Act ([Stafford Act](#)).³²⁵ Under this provision, FEMA is authorized to advance up
6865 to 25 percent of the HMGP ceiling or \$10 million (whichever is less) to applicants or subapplicants to
6866 accelerate the implementation of HMGP or HMGP Post Fire. Advance assistance is not automatic
6867 and is included in the HMGP ceiling amount.

6868 Project scoping is authorized under BRIC and FMA. For more information on BRIC and FMA, including
6869 governing policies, visit FEMA’s [“Building Resilient Infrastructure and Communities”](#) and [“Flood Mitigation Assistance Grant”](#) webpages.
6870

6871 B.2. Eligibility

6872 Advance assistance must only be used to support the development of HMGP and HMGP Post Fire
6873 projects.

³²⁴ As amended by section 1140 of the Sandy Recovery Improvement Act of 2013, Public Law 113-2 (January 29, 2013); [42 U.S.C. § 5170c\(e\)](#)

³²⁵ [Public Law 100-707](#) (November 23, 1988); amending the Disaster Relief Act of 1974, Public Law 93-288 (May 22, 1974)

6874 For BRIC and FMA, project scoping is available in accordance with the principles outlined in their
 6875 respective NOFOs for the grant cycle under which a subapplicant applies. If there are any
 6876 requirements in this section of the HMA Guide that conflict with the NOFO, the NOFO takes
 6877 precedence.

6878 Both applicants and subapplicants may apply for advance assistance or project scoping activities at
 6879 any time during an open application period.

6880 Management costs are eligible under project scoping/advance assistance subapplications.

6881 **B.2.1. ELIGIBILITY CRITERIA**

6882 Mitigation projects that are developed using project scoping/advance assistance must be both
 6883 feasible and effective at mitigating the risks of the hazard(s) for which the project was designed. A
 6884 project’s feasibility is demonstrated through conformance with accepted engineering practices,
 6885 established codes, standards, modeling techniques or best practices.

6886 Project scoping/advance assistance activities are not required to demonstrate cost-effectiveness.
 6887 However, projects that are developed using project scoping/advance assistance, which are to be
 6888 submitted for future HMA consideration, must be technically feasible, cost-effective and consistent
 6889 with EHP laws, regulations and executive orders. EHP requirements should be considered at the
 6890 earliest possible stage of project development to allow for consideration of measures that reduce
 6891 impacts to the human environment. Effective scoping to create a well-defined proposed project and
 6892 identify potential EHP issues at an early stage will help facilitate the EHP review process for projects
 6893 developed using project scoping/advance assistance.

6894 When projects are sited within the Special Flood Hazard Area (SFHA), assistance received for project
 6895 scoping/advance assistance activities can only be used in a jurisdiction that is participating in the
 6896 NFIP.

6897 **B.2.2. ELIGIBLE ACTIVITIES**

6898 The following activities are eligible under project scoping/advance assistance:

- 6899 ▪ Scoping and developing hazard mitigation projects, including engineering design and
 6900 feasibility studies. Physical work (e.g., soil tests) associated with these studies is generally
 6901 eligible.
- 6902 ▪ Conducting meetings, outreach and coordination with potential subapplicants and
 6903 community residents to identify potential future mitigation projects.
- 6904 ▪ Evaluating facilities or areas to determine appropriate mitigation actions.
- 6905 ▪ Incorporating environmental planning and historic preservation considerations into project
 6906 planning activities.

- 6907 ▪ Collecting data for Benefit-Cost Analyses, environmental compliance and other program
6908 requirements.
- 6909 ▪ Conducting hydrologic and hydraulic studies for unmapped flood zones or other areas where
6910 communities propose to submit hazard mitigation projects.
- 6911 ▪ Coordinating, scoping and developing regional or multicompany hazard mitigation projects
6912 that require coordination to cohesively address resiliency and sustainability goals.
- 6913 ▪ Using third-party cost estimation services for project budgeting across subapplications.
- 6914 ▪ Contracting services to address data consistency needs for other project application
6915 categories, such as EHP, cost-sharing mechanisms and work schedules.
- 6916 ▪ Coordinating with property owners of substantially damaged structures to review project
6917 alternatives and provide engineering and design support to bring structures into compliance
6918 with appropriate building code standards.

6919 **B.2.3. INELIGIBLE ACTIVITIES**

6920 Ineligible activities include any physical work, such as groundbreaking, construction or demolition
6921 activities.

6922 **B.3. Application and Submission Information**

6923 Applicants and subapplicants do not receive project scoping/advance assistance automatically. To
6924 receive assistance for project scoping/advance assistance activities, states, federally recognized
6925 tribes and territories must apply for project scoping/advance assistance in the electronic application
6926 system.

6927 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
6928 should have a scoping narrative in accordance with [Part 6](#).

6929 A project scoping/advance assistance scope of work should include the following items:

- 6930 ▪ A description of the tasks needed to accomplish the proposed activity as well as any required
6931 procurement.
- 6932 ▪ A description of how the proposed activity aligns with the current mitigation plan.
- 6933 ▪ The outreach and engagement plan (if applicable) and an account for the time and effort it
6934 may take to incorporate public and stakeholder feedback.
- 6935 ▪ The goals of the project scoping/advance assistance activity and specific deliverables.

6936 ▪ The steps the subapplicant will follow to complete the project scoping/advance assistance
 6937 activity and proposed deliverables. The scope of work should identify a deliverable that
 6938 includes required information to determine eligibility under HMA (e.g., engineering, cost-
 6939 effectiveness and EHP data, cost estimate, project schedule, design plan or specifications).

6940 ▪ A description of the deliverables, tasks and schedule.

6941 FEMA may request additional information after the subapplication has been submitted to ensure all
 6942 necessary information is received. However, all information required by the regulations and the
 6943 guidance must be received before an assistance decision, award or final approval can be made.

6944 **B.3.1. ACTIVITY AND SCHEDULE**

6945 When submitting a subapplication to FEMA for project scoping/advance assistance, a subapplication
 6946 must identify the proposed use of the assistance, including costs, and enough detail for both the
 6947 proposed activity and milestones.

6948 The scope of work narrative should describe the proposed activities and deliverables.

6949 The schedule should include a list of milestones for each budget year. All deliverables should also be
 6950 identified in the scope of work. The project schedule should note when deliverables are completed.

6951 **B.3.2. COSTS**

6952 **B.3.2.1. Allowable Costs**

6953 Pre-award costs must be reasonable and identified in the budget to be considered eligible incurred
 6954 costs. See [Part 3](#) for more information.

6955 Management costs are eligible under project scoping/advance assistance subapplications.

6956 **B.3.2.2. Unallowable Costs**

6957 The recipient must submit enough financial detail to demonstrate that no costs claimed under
 6958 project scoping/advance assistance are duplicated in other subapplications including those for
 6959 management costs.

6960 **B.3.2.3. Budget**

6961 All subapplications must include a line-item breakdown of all anticipated costs while referencing the
 6962 cost code categories on Standard Form (SF) 424: *Application for Federal Assistance*.

6963 **B.4. Subaward Implementation**

6964 Applicants and subapplicants must submit documentation to FEMA to support that they
 6965 accomplished all activities listed in their project scoping/advance assistance application.

6966 **B.4.1. PROGRAM REPORTING AND MONITORING**

6967 Post-award monitoring helps ensure that subapplicants/subrecipients are achieving the objectives of
6968 the federal award consistent with the performance goals and milestones described in the subaward.

6969 To assist the recipient in monitoring project scoping/advance assistance activities, the following
6970 milestone information or events (if appropriate) should be included in Quarterly Progress Reports:

- 6971 ▪ If the subrecipient is acquiring contract support, the subrecipient should report when the
6972 request for proposal is completed, when the contract is out for bid, when the bid period
6973 closes, when proposals are reviewed, when the contractor is selected and the date of the
6974 kickoff meeting.
- 6975 ▪ Public meetings and or public comment periods that have been planned or completed.
- 6976 ▪ Any other milestones that have been identified in the subapplication or agreed to or are
6977 required by the recipient.

6978 **B.4.2. BUDGET AND SCOPE CHANGE**

6979 All budget and scope changes must have prior FEMA approval; however, recipients can move funds
6980 between cost categories without prior approval if the moved funds’ cumulative amounts are less
6981 than 10 percent of the total amount of the subaward.³²⁶ Construction design activities are defined
6982 as construction activities and require prior FEMA approval for scope of work and budget changes.

6983 **B.5. Closeout**

6984 Recipients and subrecipients must closeout activities in a timely manner consistent with [Part 9](#).

6985 The recipient should provide a statement showing all the work in the approved scope of work and
6986 deliverables have been completed. This information can be included in the body of the closeout
6987 letter.

6988 **C. Technical Assistance (Financial and Nonfinancial)**

6989 **C.1. Overview**

6990 As described in [Part 10](#), FEMA provides two types of technical assistance through HMA:

- 6991 1. **FMA Technical Assistance Grant (Financial):** FMA Technical Assistance is a financial award made
6992 available to applicants to maintain a viable FMA program. For more information about the FMA
6993 Technical Assistance Grant, see the [“Flood Mitigation Assistance” webpage](#).

³²⁶ [2 CFR § 200.308\(e\)](#)

6994 2. **BRIC Direct Technical Assistance (Nonfinancial):** BRIC Direct Technical Assistance is nonfinancial
 6995 support. For more information about BRIC Direct Technical Assistance, see the [“Building](#)
 6996 [Resilient Infrastructure and Communities”](#) webpage.

6997 **C.2. Eligibility Information and Activities**

6998 Technical assistance activities under FMA are those activities applicants need to complete to
 6999 maintain a viable FMA program.

7000 **C.2.1. INELIGIBLE ACTIVITIES**

7001 Mitigation planning activities are not eligible for FMA technical assistance.

7002 **C.3. Application and Submission Information**

7003 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
 7004 should have a scoping narrative in accordance with [Part 6](#).

7005 A technical assistance scope of work should include the following items:

- 7006 ▪ A description of the tasks needed to accomplish the proposed activity as well as any
 7007 procurement that would be required.
- 7008 ▪ A description of how the proposed activity aligns with the current mitigation plan.
- 7009 ▪ The outreach and engagement plan (if applicable) and an account for the time and effort it
 7010 may take to incorporate public and stakeholder feedback.
- 7011 ▪ The goals of the project scoping/advance assistance activity and specific deliverables.
- 7012 ▪ The steps the subapplicant will follow to complete the project scoping/advance assistance
 7013 activity and proposed deliverables. The scope of work should identify a deliverable that
 7014 includes required information to determine eligibility under HMA (e.g., engineering, cost-
 7015 effectiveness and EHP data, cost estimate, project schedule, design plan or specifications).
- 7016 ▪ A description of the deliverables, tasks and schedule.

7017 FEMA may request additional information after the subapplication has been submitted to ensure all
 7018 necessary information is received. However, all information required by the regulations and the HMA
 7019 Guide must be received before an assistance decision and award or final approval can be made.

7020 **C.3.1. ACTIVITY AND SCHEDULE**

7021 When submitting a subapplication to FEMA for technical assistance, a subapplication must identify
 7022 the proposed use of the assistance, including costs and enough detail for both the proposed activity
 7023 and milestones.

7024 The scope of work narrative should describe the proposed activities and deliverables.

7025 The schedule should include a list of milestones for each budget year. All deliverables should also be
7026 identified in the scope of work. The project schedule should note when deliverables are completed.

7027 **C.3.2. COSTS**

7028 **C.3.2.1. Allowable Costs**

7029 Pre-award costs must be reasonable and identified in the budget to be considered eligible incurred
7030 costs. See [Part 3](#) for more information.

7031 **C.3.2.2. Unallowable Costs**

7032 The recipient must submit enough financial detail to demonstrate that no costs claimed under
7033 technical assistance are duplicated in other subapplications including those for management costs.

7034 **C.3.2.3. Budget**

7035 All subapplications must include a line-item breakdown of all anticipated costs while referencing the
7036 cost code categories on SF-424.

7037 **C.4. Subaward Implementation**

7038 Applicants and subapplicants must submit documentation to FEMA to support that they
7039 accomplished all activities listed in their technical assistance application.

7040 **C.4.1. PROGRAM REPORTING AND MONITORING**

7041 Post-award monitoring helps ensure that subapplicants/subrecipients are achieving the objectives of
7042 the federal award consistent with the performance goals and milestones described in the subaward.

7043 To assist the recipient in monitoring partnership activities, the following milestone information or
7044 events (if appropriate) should be included in Quarterly Progress Reports:

- 7045 ▪ If the subrecipient is acquiring contract support, the subrecipient should report when the
7046 request for proposal is completed, when the contract is out for bid, when the bid period
7047 closes, when proposals are reviewed, when the contractor is selected and the date of the
7048 kickoff meeting.
- 7049 ▪ Public meetings and or public comment periods that have been planned or completed.
- 7050 ▪ Any other milestones that have been identified in the subapplication or agreed to or are
7051 required by the recipient.

7052 **C.4.2. BUDGET AND SCOPE CHANGE**

7053 All budget and scope changes must have prior FEMA approval; however, recipients can move funds
7054 between cost categories without prior approval if the moved funds' cumulative amounts are less
7055 than 10 percent of the total amount of the subaward.³²⁷

7056 Recipients are required to complete all elements in the scope of work submitted with the
7057 subapplication. Prior approval from FEMA is required for the following:

- 7058 ▪ When a subrecipient wants to change the scope of work or the objective of the technical
7059 assistance activity (e.g., changes in key personnel managing the project, the level of effort,
7060 outreach activities or deliverables).
- 7061 ▪ When a subrecipient wants to change a key person identified in the subapplication.
- 7062 ▪ When there is a 25 percent reduction in time devoted to the project or disengagement from
7063 the technical assistance activity for more than three months.
- 7064 ▪ Inclusion of costs not included in the approved budget.
- 7065 ▪ The transfer of assistance between cost categories for participant support costs.³²⁸

7066 **C.5. Closeout**

7067 Recipients and subrecipients must closeout activities in a timely manner consistent with [Part 9](#).

7068 The recipient should provide a statement showing that all work in the approved scope of work and
7069 deliverables have been completed. This information can be included in the body of the closeout
7070 letter.

7071 **D. Partnerships**

7072 **D.1. Overview**

7073 Community resilience cannot be achieved without leveraging a broad network of partners that
7074 include (but are not limited to) all levels of government, the private sector, private nonprofits, and
7075 educational institutions.

7076 These partners are key to driving investments in mitigation projects, building capability through
7077 training and technical assistance, planning for increased resilience, promoting mitigation activities
7078 and sharing information to promote and sustain a ready FEMA and prepared nation.

³²⁷ [2 CFR § 200.308\(e\)](#)

³²⁸ [2 CFR § 200.1](#)

7079 **D.2. Eligibility Information and Activities**

7080 Partnership activities are only eligible for assistance under BRIC.

7081 To ensure applicants and subapplicants can build partnerships to support their mitigation efforts,
7082 partnership activities are eligible under the BRIC state/territory allocation and tribal set-aside.

7083 Partnership activities, however, are not eligible for assistance under the national competition. For
7084 specific eligibility criteria to receive assistance for partnership activities under BRIC, refer to the
7085 [“Building Resilient Infrastructure and Communities”](#) webpage and the NOFO for the year funding of
7086 the partnership activities was sought.

7087 Generally, to receive assistance for partnership activities, applicants and subapplicants must
7088 demonstrate the effectiveness and ultimate benefit of the activities. Applicants demonstrate this by
7089 providing a detailed explanation of the proposed partnership activity, expected milestones and
7090 planned deliverables. At closeout, applicants and subapplicants must also provide information and
7091 materials to detail the outcomes of the approved activities and deliverables stated in the
7092 subapplication.

7093 The following is a nonexhaustive list of potential partnership activities eligible under BRIC that
7094 enhance the knowledge, skills and expertise of applicants and subapplicants in developing and
7095 managing partnerships to build whole community resilience:

7096 ▪ Conducting a capability gap analysis (or partner network analysis) to determine where
7097 partnerships could be helpful or where assistance matching opportunities can be leveraged.

7098 ▪ Providing or attending training on evaluating, pursuing or sustaining partnerships.

7099 ▪ Supporting partner identification or partnership development activities (e.g., hosting a
7100 partner fair, pursuing initiatives with higher education institutions, engaging with economic
7101 development organizations), such as:

7102 ○ Involving private-sector and community lifelines operators, (i.e., health and medical,
7103 energy and transportation service providers) in the mitigation planning processes.

7104 ○ Developing a partner database or online portal to submit and share partnership case
7105 studies.

7106 ▪ Pursuing opportunities for knowledge transfer between partners (e.g., mentoring or
7107 shadowing programs), such as:

7108 ○ Attending state, local, tribal, territorial, regional or national conferences to support
7109 knowledge sharing and partnership development.

7110 ○ Hosting a forum to share best practices and lessons learned or conducting mitigation-
7111 related tabletop exercises to build relationships.

- 7112 ○ Sustaining existing partnership initiatives or capitalizing on existing networks.
- 7113 ○ Implementing other innovative partnership approaches identified by the applicant or
- 7114 subapplicant to meet stated needs.

7115 These activities may be pursued at the applicant or subapplicant level to support partnership
 7116 building efforts or may be provided by applicants to subapplicants to enhance the capability of
 7117 communities to develop and sustain partnerships.

7118 **D.2.1. INELIGIBLE ACTIVITIES**

7119 Mitigation planning activities are not eligible for BRIC partnership assistance.

7120 **D.3. Application and Submission Information**

7121 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
 7122 should have a scoping narrative in accordance with [Part 6](#).

7123 FEMA may request additional information after the subapplication has been submitted to ensure
 7124 that all necessary information is received. However, all information required by the regulations and
 7125 the guidance must be received before an assistance decision and award or final approval can be
 7126 made.

7127 A partnership scope of work should include the following items:

- 7128 ■ A description of the tasks needed to accomplish the proposed activity as well as any
 7129 procurement that would be required.
- 7130 ■ A description of how the proposed activity aligns with the current mitigation plan.
- 7131 ■ The outreach and engagement plan (if applicable) and an account for the time and effort it
 7132 may take to incorporate public and stakeholder feedback.
- 7133 ■ The goals of the partnership activity and specific deliverables.
- 7134 ■ The steps the subapplicant will follow to complete the partnership activity and proposed
 7135 deliverables. The scope of work should identify a deliverable that includes required
 7136 information to determine eligibility under HMA (e.g., engineering, cost-effectiveness and EHP
 7137 data, cost estimate, project schedule, design plan or specifications).
- 7138 ■ A description of the deliverables, tasks and schedule.

7139 **D.3.1. ACTIVITY AND SCHEDULE**

7140 When submitting a subapplication to FEMA for partnership activities, a subapplication must identify
 7141 the proposed use of the assistance, including costs and enough detail for both the proposed activity
 7142 and milestones.

7143 The scope of work narrative should describe the proposed activities and deliverables.

7144 The schedule should include a list of milestones for each budget year. All deliverables should also be
 7145 identified in the scope of work. The project schedule should note when deliverables are to be
 7146 completed.

7147 **D.3.2. COSTS**

7148 **D.3.2.1. Allowable Costs**

7149 Pre-award costs must be reasonable and identified in the budget to be considered eligible incurred
 7150 costs. See [Part 3](#) for more information.

7151 **D.3.2.2. Unallowable Costs**

7152 The recipient must submit enough financial detail to demonstrate that no costs claimed under
 7153 partnerships are duplicated in other subapplications including those for management costs.

7154 **D.3.2.3. Budget**

7155 All subapplications must include a line-item breakdown of all anticipated costs while referencing the
 7156 cost code categories on SF-424.

7157 **D.4. Subaward Implementation**

7158 Applicants and subapplicants must submit documentation to FEMA to support that they
 7159 accomplished all activities listed in their partnership application.

7160 **D.4.1. PROGRAM REPORTING AND MONITORING**

7161 Post-award monitoring helps ensure that subapplicants/subrecipients are achieving the objectives of
 7162 the federal award consistent with the performance goals and milestones described in the subaward.

7163 To assist the recipient in monitoring partnership activities, the following milestone information or
 7164 events (if appropriate) should be included in Quarterly Progress Reports:

- 7165 ▪ If the subrecipient is acquiring contract support, the subrecipient should report when the
 7166 request for proposal is completed, when the contract is out for bid, when the bid period
 7167 closes, when proposals are reviewed, when the contractor is selected and the date of the
 7168 kickoff meeting.

7169 ▪ Public meetings and or public comment periods that have been planned or completed.

7170 ▪ Any other milestones that have been identified in the subapplication or agreed to or are
7171 required by the recipient.

7172 **D.4.2. BUDGET AND SCOPE CHANGE**

7173 All budget and scope changes must have prior FEMA approval; however, recipients can move funds
7174 between cost categories without prior approval if the moved funds' cumulative amounts are less
7175 than 10 percent of the total amount of the subaward.³²⁹

7176 Recipients are required to complete all elements in the scope of work submitted with the
7177 subapplication. Prior approval from FEMA is required for the following:

7178 ▪ When a subrecipient wants to change the scope of work or the objective of the partnership
7179 activity (e.g., changes in key personnel managing the project, the level of effort, outreach
7180 activities or deliverables).

7181 ▪ When a subrecipient wants to change a key person identified in the subapplication.

7182 ▪ When there is a 25 percent reduction in time devoted to the project or disengagement from
7183 the partnership activity for more than three months.

7184 ▪ Inclusion of costs not included in the approved budget.

7185 ▪ The transfer of assistance between cost categories for participant support costs.³³⁰

7186 **D.5. Closeout**

7187 Recipients and subrecipients must closeout activities in a timely manner consistent with [Part 9](#).

7188 The recipient should provide a statement showing that all the work in the approved scope of work
7189 and deliverables have been completed. This information can be included in the body of the closeout
7190 letter.

7191 **E. Codes and Standards**

7192 **E.1. Overview**

7193 The development, adoption, evaluation, enhancement and enforcement of building codes and
7194 standards is a priority for HMA. Assistance for codes and standards-related activities can take place

³²⁹ [2 CFR § 200.308\(e\)](#)

³³⁰ [2 CFR § 200.1](#)

7195 under three HMA programs: HMGP, HMGP Post Fire and BRIC. Eligible activities under these three
 7196 programs are generally the same, but assistance restrictions (i.e., the ways in which these activities
 7197 can be funded) differ.

7198 The activities outlined below relate to both building codes and land use ordinances. Codes and
 7199 standards activities help implement planning-related activities by focusing on where and how
 7200 communities build in response to potential hazards. The phrase “codes and standards activities” can
 7201 relate to codes and standards for buildings and structures as well as equivalent industry-accepted
 7202 standards for nonbuilding infrastructure projects.

7203 Land use ordinances also can increase resilience by controlling the type and location of future
 7204 building development. Under HMGP, HMGP Post Fire and BRIC, planning-related activities may allow
 7205 for the evaluation, adoption and/or implementation of land use and development codes including
 7206 but not limited to zoning codes, form-based codes, subdivision codes and floodplain management
 7207 ordinances, that reduce risk and/or increase resilience to future hazards. For more information on
 7208 eligible activities and funding restrictions, see subsection [A. Hazard Mitigation Planning and](#)
 7209 [Planning-Related Activities](#).

7210 To promote code enforcement and improvement activities early in the recovery period, assistance
 7211 may be available under HMGP and HMGP Post Fire for eligible codes and standards-related
 7212 activities. This assistance can be applied for after receiving the 30-day and/or six-month HMGP
 7213 assistance estimates. See [Part 10](#) for more information about available assistance amounts for
 7214 HMGP and HMGP Post Fire and [Part 3](#) for more information on coordinating with the PA Mitigation
 7215 program.

7216 **E.2. Eligibility Information and Activities**

7217 Under HMGP, HMGP Post Fire and BRIC, types of codes and standards activities eligible for
 7218 assistance include but are not limited to:

- 7219 ▪ Evaluation of the adoption and/or implementation of codes to reduce risk.
- 7220 ▪ Enhancement of existing adopted codes to incorporate more current requirements or higher
 7221 standards.
- 7222 ▪ Development of professional workforce capabilities through technical assistance and training
 7223 with the use of tools such as available e-permitting software, remote, virtual and drone
 7224 inspection technologies.
- 7225 ▪ Evaluation of the adoption and/or implementation of land use and zoning ordinances.

7226 Additionally, HMGP and HMGP Post Fire provide assistance for post-disaster code enforcement,
 7227 which is a recovery activity. FEMA encourages eligible subapplicants to evaluate their building codes
 7228 needs as soon as possible following a declaration and consider prioritizing the submission of post-
 7229 disaster code enforcement subapplications early in the application period. HMGP and HMGP Post

7230 Fire can be used to continue assistance for activities that may have been provided initially through
 7231 FEMA’s PA program, which is authorized by section 406 of the Stafford Act to provide assistance for
 7232 building code enforcement for a period of not more than 180 days after a declared disaster.³³¹

7233 Post-disaster code enforcement activities are not eligible under BRIC. Codes and standards activities
 7234 are not eligible under FMA.

7235 [Table 15](#) highlights eligible codes and standards activities.

7236 **Table 15: Eligible Codes and Standards Activities**

Eligible Activities	HMGP	HMGP Post Fire	BRIC	FMA
Evaluation of the adoption and/or implementation of codes that reduce risk	Yes	Yes	Yes	No
Enhancement of existing adopted codes to incorporate more current requirements or higher standards	Yes	Yes	Yes	No
Development of professional workforce capabilities through technical assistance and training	Yes	Yes	Yes	No
Evaluation of the adoption and/or implementation of land use and zoning ordinances	Yes	Yes	Yes	No
Post-disaster code enforcement	Yes	Yes	No	No

7237 **E.2.1. EVALUATION, ENHANCEMENT AND DEVELOPMENT ACTIVITIES**

7238 Eligible codes and standards activities under HMGP, HMGP Post Fire and BRIC include assistance for
 7239 the following activities:

7240 ▪ Evaluate which code adoption and enforcement activities are best suited for the jurisdiction.
 7241 Activities include the publication of code requirements related to land use, zoning, floodplain
 7242 management, infrastructure, urban-wildland defensible space (e.g., stormwater management
 7243 regulations) or other areas that help make a community more resilient.

7244 ▪ Enhance (e.g., adopt, develop, improve or modify) current or existing building code
 7245 requirements to reflect the latest code edition, exceed the latest code edition or
 7246 develop/modify building code-coordinated requirements.

³³¹ [42 U.S.C. § 5172](#)

7247 ▪ Develop professional workforce capabilities through technical assistance and training for the
7248 public and/or private sectors.

7249 ○ Training activities include:

7250 – Providing or pursuing training, including individual certification courses (e.g.,
7251 inspector, plans reviewer, certified floodplain manager).

7252 – Planning, training and exercises for post-disaster building code enforcement.

7253 – Developing activities related to improving code enforcement (e.g., evaluate
7254 processes; implement an inspection program; improve the Insurance Office Services,
7255 Inc. Building Code Effectiveness Grading Scale score; and improve the Community
7256 Rating System rating).

7257 ○ Technical assistance activities include:

7258 – Employing a mutual-aid agreement among communities to use other local building
7259 officials.

7260 – Entering into a contractual agreement with a state or regional government entity that
7261 is knowledgeable of building codes and proper administration of a building
7262 department.

7263 – Entering into a contractual agreement with one of the model building code
7264 organizations.

7265 – Employing building code experts temporarily.

7266 – Requesting FEMA technical assistance regarding building codes and proper building
7267 department administration.

7268 [Table 16](#) highlights eligible evaluation, enhancement and development codes and standards
7269 activities. These activities are subject to funding restrictions. See subsection [E.2.6 Assistance](#)
7270 [Restrictions](#) and [Part 10](#) for additional information.

7271
7272

Table 16: Eligible Activities to Evaluate the Adoption and/or Implementation of Codes and Standards Activities

Eligible Activity	HMGP and HMGP Post Fire <i>(Eligible under 5% Initiative)</i>	HMGP and HMGP Post Fire <i>(Eligible under 5% Codes and Standards)</i>	HMGP and HMGP Post Fire <i>(Eligible under 7% Planning)</i>	BRIC
Evaluate which code adoption and enforcement activities are best suited for the jurisdiction	Yes	Yes	Yes, land use ordinances only	Yes
Adopt building codes or develop building code requirements that help make the community more resilient (including publication of those requirements) related to land use, zoning, floodplain management, infrastructure, urban-wildland defensible space (e.g., building, stormwater management regulations) or other area	Yes	Yes	Yes, land use ordinances only	Yes

Eligible Activity	HMGP and HMGP Post Fire <i>(Eligible under 5% Initiative)</i>	HMGP and HMGP Post Fire <i>(Eligible under 5% Codes and Standards)</i>	HMGP and HMGP Post Fire <i>(Eligible under 7% Planning)</i>	BRIC
Improve or modify current or existing building code requirements to reflect the latest code edition, exceed the latest code edition, or develop or modify building code-coordinated requirements that help make the community more resilient (including publication of those requirements) related to land use, zoning, floodplain management, infrastructure, urban-wildland defensible space (e.g., stormwater management regulations) or other area	Yes	Yes	Yes, land use ordinances only	Yes
Enhance existing adopted codes and enforcement to incorporate more current requirements, higher standards, electronic permitting, online model code access, virtual inspection technology and remote building codes administration	Yes	Yes	No	Yes

Eligible Activity	HMGP and HMGP Post Fire (Eligible under 5% Initiative)	HMGP and HMGP Post Fire (Eligible under 5% Codes and Standards)	HMGP and HMGP Post Fire (Eligible under 7% Planning)	BRIC
Provide or pursue training, including individual certification courses (inspector, plans reviewer, certified floodplain manager) and training for both the public and private sectors	Yes	Yes	Yes, when in support of an eligible planning activity	Yes
Develop planning, training and exercises for post-disaster building code enforcement through the International Code Council’s When Disaster Strikes Institute training course	Yes	Yes	Yes	Yes
Develop or acquire software, hardware and associated training to assist with plan reviews, permitting, inspections and records retention	Yes, when in support of other eligible activities	Yes, when in support of other eligible activities	No	Yes
Purchase publications—obtain digital license or printing permissions of publications—to support building code activities	Yes	Yes	No	Yes
Engage consulting services to support activities related to building codes	Yes	Yes	No	Yes
Engage consulting services to support activities related to land use ordinances	Yes	Yes	Yes	Yes

Eligible Activity	HMGP and HMGP Post Fire (Eligible under 5% Initiative)	HMGP and HMGP Post Fire (Eligible under 5% Codes and Standards)	HMGP and HMGP Post Fire (Eligible under 7% Planning)	BRIC
Cover costs associated with building department accreditation	Yes	Yes	No	Yes
Conduct public awareness activities and outreach related to building codes	Yes	Yes	No	Yes
Conduct public awareness activities and outreach related to land use ordinances	Yes	Yes	Yes	Yes
Develop activities related to improving code enforcement (evaluate processes, implement an inspection program, improve Building Code Effectiveness Grading Scale score, improve CRS rating)	Yes	Yes	Yes, for CRS rating only	Yes

7273

7274 If a property owner needs additional design assistance to complete the permitting process, project
7275 scoping/advance assistance may be used.

7276 **E.2.2. HMGP AND HMGP POST FIRE POST-DISASTER CODE ENFORCEMENT**

7277 HMGP and HMGP Post Fire may provide assistance for code enforcement after a disaster to ensure
7278 that disaster-resistant building codes (codes, standards and local ordinances that promote disaster
7279 resistance) are adopted and implemented. Eligible costs are “extraordinary” post-disaster code
7280 enforcement costs or the costs that exceed the building department’s normal costs. The best time
7281 for local communities to enforce post-disaster codes is during response and recovery. Subapplicants
7282 may apply for post-disaster code enforcement activities once the HMGP or HMGP Post Fire
7283 application period has been opened.

7284 As part of PA, FEMA is also authorized to provide assistance to state and local governments for
 7285 building code and floodplain administration and enforcement, including inspections for substantial
 7286 damage compliance, for a period of not more than 180 days after the major disaster is declared.
 7287 HMGP can provide assistance for post-disaster building code activities to continue past the 180-day
 7288 PA limit. If a recipient or subrecipient receives PA assistance for building code enforcement and
 7289 administration activities and intends to continue these activities after PA is no longer available, they
 7290 should submit a subapplication under HMGP as soon as possible so the subapplication can be
 7291 reviewed and approved before PA expires. More information can be found in FEMA Policy [FP 204-](#)
 7292 [079-01: Building Code and Floodplain Management Administration and Enforcement](#) (October 15,
 7293 2020).

7294 [Table 17](#) highlights eligible post-disaster code enforcement and recovery activities.

7295 **Table 17: Eligible Post-Disaster Code Enforcement and Recovery Activities**

Eligible Activity	HMGP and HMGP Post Fire 5% Initiative	HMGP and HMGP Post Fire 5% Codes and Standards	HMGP and HMGP Post Fire 7% Planning	BRIC
Conduct post-disaster code enforcement activities	Yes	Yes	No	No
Track and enforce disaster-damaged properties (including substantially damaged structures) to ensure they are repaired to appropriate building codes and flood management standards	Yes	Yes	No	No

Eligible Activity	HMGP and HMGP Post Fire 5% Initiative	HMGP and HMGP Post Fire 5% Codes and Standards	HMGP and HMGP Post Fire 7% Planning	BRIC
Provide technical assistance to property owners during repairs of disaster-damaged structures (including substantially damaged structures)	Yes	Yes	No	No

7296 **E.2.3. ELIGIBLE COSTS**

7297 Potential eligible costs for codes and standards activities include the following:

- 7298 ▪ Labor costs for activities such as staff review of building codes, development of ordinances, 7299 drafting of procedures for plan review and inspection, and training and certification in latest 7300 codes not covered by normal staffing costs, such as overtime.
- 7301 ▪ Service contracts (e.g., architect/engineering consulting services to support projects related 7302 to building codes).
- 7303 ▪ Materials (e.g., purchase of code books or manuals and printing of publications supporting 7304 building code projects).
- 7305 ▪ Other costs (e.g., costs related to implementation, raising awareness, disseminating 7306 information and providing education related to new or upgraded codes).

7307 **E.2.4. INELIGIBLE ACTIVITIES**

7308 The activity must be consistent with the criteria in [Part 4](#).

7309 The jurisdiction’s normal staffing costs are not eligible under HMGP, HMGP Post Fire or BRIC. For 7310 permanent work, both straight time (i.e., the regularly established working time of employees during 7311 a standard period, such as a week)³³² and overtime labor costs are not eligible for either budgeted or 7312 unbudgeted employee hours. Permanent work is work completed by a permanent employee paid by

³³² <https://www.merriam-webster.com/dictionary/straight%20time>

7313 the jurisdiction. Part-time or other staff hired to address a surge in permitting activities because of
 7314 the disaster are eligible expenses.

7315 Costs covered by other federal assistance programs (e.g., PA) are not eligible.

7316 **E.2.5. PROGRAM INCOME**

7317 If this project type will include processing permit applications and communities receive fees for those
 7318 permit applications, then the subapplicant needs to consider how this support is above and beyond
 7319 what is supposed to be covered by permit fees. Fee waivers are considered program income. For
 7320 more information on program income, see [Part 8](#).

7321 **E.2.6. ASSISTANCE RESTRICTIONS**

7322 Assistance restrictions for HMGP, HMGP Post Fire and BRIC are described below.

7323 **E.2.6.1. HMGP and HMGP Post Fire Assistance Funding Restrictions for Codes and**
 7324 **Standards**

7325 Codes and standards projects may be funded via multiple assistance opportunities under HMGP and
 7326 HMGP Post Fire:

7327 ▪ **5 Percent Initiative:** Up to five percent of the HMGP ceiling may be set aside by the recipient
 7328 to pay for activities for which it is difficult to quantify cost-effectiveness. Applicants may apply
 7329 for five percent of the HMGP ceiling amount for codes and standards activities under the 5
 7330 Percent Initiative, in addition to the 5 Percent Codes and Standards funding mentioned
 7331 immediately below. Applicants may use this funding opportunity if the 5 Percent Initiative
 7332 assistance is not used for other activities. Codes and standards activities are just one type of
 7333 eligible activity under the 5 Percent Initiative.

7334 ○ **5 Percent Codes and Standards:** Applicants may apply for up to five percent of the HMGP
 7335 ceiling amount for codes and standards activities. This funding source was previously
 7336 referred to as “Additional 5 Percent.” The name and requirements have been updated to
 7337 provide dedicated funding to strengthen the use of building codes and standards. The 5
 7338 Percent Codes and Standards offers eligibility for a variety of codes and standards
 7339 activities. This funding source must be used for codes and standards activities and may
 7340 be paired with the 5 Percent Initiative for a total of up to 10 percent of the HMGP ceiling
 7341 amount.

7342 ▪ **Other federal funding:** Any codes and standards activities funded by another federal program
 7343 are not eligible for assistance under HMGP or HMGP Post Fire. For example, code and
 7344 standards activities funded under PA cannot also be funded under HMGP or HMGP Post Fire.
 7345 Once the available PA support has been exhausted, codes and standards activities then can
 7346 be continued under HMGP and HMGP Post Fire.

7347 **E.2.6.2. BRIC Funding for Codes and Standards**

7348 Assistance for codes and standards activities under BRIC are described in detail in the yearly NOFO.
 7349 Codes and standards activities are only eligible for assistance under the state/territory allocation
 7350 and tribal set-aside; they are not eligible for assistance under the national competition.

7351 **E.2.7. COST-EFFECTIVENESS**

7352 Subapplications for codes and standards activities under HMGP, HMGP Post Fire and BRIC are not
 7353 required to perform a BCA if the assistance amounts are within the restrictions noted above for
 7354 HMGP or within the limitations set forth in the relevant BRIC NOFO.

7355 **E.3. Application and Submission Information**

7356 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
 7357 should have a scoping narrative in accordance with [Part 6](#). Specific criteria for codes and standards
 7358 subapplications are highlighted below.

- 7359 ▪ A description of how the proposed activity aligns with the current mitigation plan.
- 7360 ▪ The outreach and engagement plan (if applicable) and an account for the time and effort it
 7361 may take to incorporate public and stakeholder feedback.
- 7362 ▪ The goals of the codes and standards activity and specific deliverables.
- 7363 ▪ The steps the subapplicant will follow to complete the codes and standards activity and
 7364 proposed deliverables.
- 7365 ▪ A description of the deliverables, tasks and schedule.

7366 FEMA may request additional information after the subapplication has been submitted to ensure all
 7367 necessary information is received. However, all information required by the regulations and the
 7368 guidance must be received before an assistance decision and award or final approval can be made.

7369 **E.3.1. ACTIVITIES AND SCHEDULE**

7370 All subapplications, as part of the scope of work, should include an activities description referencing
 7371 industry standards or project plans and specifications. The subapplication needs to describe the
 7372 deliverable for the proposed activity and include a schedule for completing the activities.

7373 **Development of the Activities Description:** The activities description explains how a subapplicant will
 7374 organize and execute the related activity. Generally, the description explains the activities that will be
 7375 completed and identifies the deliverable product. The subapplicant should identify whether the
 7376 subapplication expects to use contract support, identifies stakeholders or explains public outreach.

7377 An activities description should address the following:

- 7378 ▪ **Tasks:** The subapplicant must describe the tasks needed to accomplish the proposed activity
7379 as well as any required procurement.

- 7380 ▪ **Alignment with current mitigation plans:** The scope of work must describe how the proposed
7381 activity builds on activities in the current FEMA-approved mitigation plan or describe how this
7382 information will be incorporated into the next update of the plan.

- 7383 ▪ **Conformance with NFIP:** The scope of work must indicate that the proposed codes and
7384 standards deliverables will comply with NFIP requirements. The scope of work must include
7385 an assessment of the deliverables by the NFIP state or tribal coordinator to determine if the
7386 deliverables are compliant with NFIP regulations.

- 7387 ▪ **Public and stakeholder engagement plan:** The scope of work must identify the outreach and
7388 engagement plan. The activity description should account for the time and effort it may take
7389 to incorporate public and stakeholder feedback.

- 7390 ▪ **Codes and standards assessment and adoption:** The scope of work must describe the codes
7391 and standards assessment and drafting process, adoption by the subrecipient/participant
7392 jurisdictions and final approval by the recipient, as applicable.

- 7393 ▪ **Goals:** The scope of work must include the goals of the related codes and standards activity
7394 and identify specific deliverables that will be completed by the activity.

- 7395 ▪ **Training and exercises:** The scope of work must describe any proposed training and exercise
7396 activity and identify how it will support the ability and capacity building of personnel.

- 7397 ▪ **Equipment and publications:** The scope of work must describe the proposed acquisition of
7398 software and hardware, if applicable, and the intention to purchase building code
7399 publications or subscriptions.

- 7400 ▪ **Implementation strategy:** The scope of work must outline the steps the subapplicant will
7401 follow to implement the codes and standards activity and complete the proposed
7402 deliverables. This information should include a project schedule.

7403 **E.3.2. COSTS**

7404 **E.3.2.1. Allowable Costs**

7405 Pre-award costs must be identified in the budget to be considered eligible incurred costs.

7406 **E.3.2.2. Unallowable Costs**

7407 The recipient must submit enough financial detail to demonstrate that no costs claimed under
7408 technical assistance are duplicated in other subapplications including those for management costs.
7409 Costs covered by other federal assistance programs (e.g., PA) are not allowable.

7410 **E.3.2.3. Budget**

7411 All subapplications must include a line-item breakdown of all anticipated costs while referencing the
7412 cost code categories on SF-424.

7413 **E.4. Subaward Implementation**

7414 Applicants and subapplicants must submit documentation to FEMA to support that they
7415 accomplished all activities listed in their partnership application.

7416 **E.4.1. PROGRAM REPORTING AND MONITORING**

7417 Post-award monitoring helps ensure subapplicants/subrecipients are achieving the objectives of the
7418 federal award consistent with the performance goals and milestones described in the subaward.

7419 To assist the recipient in monitoring codes and standards activities, the following milestone
7420 information or events (if appropriate) should be included in Quarterly Progress Reports:

- 7421 ▪ If the subrecipient is acquiring contract support, the subrecipient should report when the
7422 request for proposal is completed, when the contract is out for bid, when the bid period
7423 closes, when proposals are reviewed, when the contractor is selected and the date of the
7424 kickoff meeting.
- 7425 ▪ Public meetings and or public comment periods that have been planned or completed.
- 7426 ▪ Training or exercises that have been scheduled and completed.
- 7427 ▪ When the subapplicant has adopted the code or standard, if adoption is delayed or if the
7428 subapplicant does not intend to adopt the code or standard.
- 7429 ▪ Any other milestones that have been identified in the subapplication, agreed to, or are
7430 required by the recipient.

7431 **E.4.2. BUDGET AND SCOPE CHANGE**

7432 All budget and scope changes must have prior FEMA approval consistent with [Part 8](#); however,
7433 recipients can move funds between cost categories without prior approval if the moved funds'
7434 cumulative amounts are less than 10 percent of the total amount of the subaward.³³³

7435 Recipients are required to complete all elements in the scope of work submitted with the
7436 subapplication. Prior approval from FEMA is required for the following:

³³³ [2 CFR § 200.308\(e\)](#)

- 7437 ■ When a subrecipient wants to change the scope of work or the objective of the codes or
7438 standards activity (e.g., changes in key personnel managing the project, the level of effort,
7439 outreach activities or deliverables).
- 7440 ■ When the subrecipient/jurisdiction identified in the scope of work chooses not to adopt the
7441 code or standard.
- 7442 ■ When a subrecipient wants to change a key person identified in the subapplication.
- 7443 ■ When there is a 25 percent reduction in time devoted to the project or disengagement from
7444 the codes or standards activity for more than three months.
- 7445 ■ Inclusion of costs not included in the approved budget.
- 7446 ■ The transfer of assistance between cost categories for participant support costs.³³⁴

7447 **E.5. Closeout**

7448 Recipients and subrecipients must closeout activities in a timely manner consistent with [Part 9](#).

7449 The recipient should provide a statement showing that all work in the approved scope of work
7450 including the proposed deliverables and tasks was completed. This information can be included in
7451 the body of the closeout letter.

7452 If the scope of work included adoption of a code or standard, the recipient must provide
7453 documentation to demonstrate the code or standard was adopted by the subapplicant/participating
7454 jurisdictions. In addition, the closeout statement should include documentation that the state or
7455 tribal NFIP coordinator has determined the codes and standards are compliant with NFIP
7456 regulations, if applicable. The subrecipient must also provide a brief description of lessons learned or
7457 success stories.

7458  **Codes and Standards Resources**

- 7459 ■ *Reducing Flood Losses Through the International Codes: Coordinating Building Codes and*
7460 *Floodplain Management Regulations, 5th Edition (2019):*
7461 [https://www.fema.gov/sites/default/files/2020-07/fema_reducing_flood_losses_rfl_5th-](https://www.fema.gov/sites/default/files/2020-07/fema_reducing_flood_losses_rfl_5th-ed.pdf)
7462 [ed.pdf](https://www.fema.gov/sites/default/files/2020-07/fema_reducing_flood_losses_rfl_5th-ed.pdf)
- 7463 ■ International Building Code: [https://www.iccsafe.org/products-and-services/i-codes/2018-](https://www.iccsafe.org/products-and-services/i-codes/2018-i-codes/ibc/)
7464 [i-codes/ibc/](https://www.iccsafe.org/products-and-services/i-codes/2018-i-codes/ibc/)

³³⁴ [2 CFR § 200.1](#)

- 7465 ▪ International Residential Code: [https://www.iccsafe.org/products-and-services/i-](https://www.iccsafe.org/products-and-services/i-codes/2018-i-codes/irc/)
7466 [codes/2018-i-codes/irc/](https://www.iccsafe.org/products-and-services/i-codes/2018-i-codes/irc/)
- 7467 ▪ American Society of Civil Engineers/Structural Engineering Institute 7:
7468 <https://www.asce.org/asce-7/>
- 7469 ▪ American Society of Civil Engineers 24: <https://ascelibrary.org/doi/book/10.1061/asce24>
- 7470 ▪ BRIC Building Code Activities: [https://www.fema.gov/sites/default/files/2020-](https://www.fema.gov/sites/default/files/2020-08/fema_bric-building-code-activities_support_document_august_2020.pdf)
7471 [08/fema_bric-building-code-activities_support_document_august_2020.pdf](https://www.fema.gov/sites/default/files/2020-08/fema_bric-building-code-activities_support_document_august_2020.pdf)
- 7472 ▪ FEMA Building Science: [https://www.fema.gov/emergency-managers/risk-](https://www.fema.gov/emergency-managers/risk-management/building-science)
7473 [management/building-science](https://www.fema.gov/emergency-managers/risk-management/building-science)
- 7474 ▪ International Code Council 500: [https://shop.iccsafe.org/icc-500-2014-standard-and-](https://shop.iccsafe.org/icc-500-2014-standard-and-commentary-icc-nssa-standard-for-the-design-and-construction-of-storm-shelters-1.html)
7475 [commentary-icc-nssa-standard-for-the-design-and-construction-of-storm-shelters-1.html](https://shop.iccsafe.org/icc-500-2014-standard-and-commentary-icc-nssa-standard-for-the-design-and-construction-of-storm-shelters-1.html)
- 7476 ▪ FEMA Policy 2014-079-01, *Building Code and Floodplain Management Administration and*
7477 *Enforcement*: [https://www.fema.gov/sites/default/files/2020-10/fema_building-code-](https://www.fema.gov/sites/default/files/2020-10/fema_building-code-floodplain-management-administration-enforcement-policy_drra-1206_signed_10-15-2020.pdf)
7478 [floodplain-management-administration-enforcement-policy_drra-1206_signed_10-15-](https://www.fema.gov/sites/default/files/2020-10/fema_building-code-floodplain-management-administration-enforcement-policy_drra-1206_signed_10-15-2020.pdf)
7479 [2020.pdf](https://www.fema.gov/sites/default/files/2020-10/fema_building-code-floodplain-management-administration-enforcement-policy_drra-1206_signed_10-15-2020.pdf)

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Part 12. Mitigation Projects

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This section provides guidance on common project types that are generally eligible for Hazard Mitigation Assistance (HMA). Each project-specific section in [Part 12](#) generally follows the same outline by first providing an overview of the project type, followed by eligibility criteria and a description of eligible activities, application and submission information, subaward implementation, closeout and additional resources.

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Natural hazards such as flooding, high wind, drought, earthquakes, wildfires and landslides pose major threats to communities across the United States. Reducing these threats to lives, properties and the economy is a top priority for the Federal Emergency Management Agency (FEMA) and many communities. Where appropriate, FEMA encourages evaluating nature-based solutions as a cost-effective and climate-resilient approach to keep natural hazards from becoming more costly disasters. For example, the [National Mitigation Investment Strategy](#) has recognized the many benefits nature-based solutions can offer and the diverse partners they can draw to the table. Therefore, as an overarching philosophy to hazard mitigation, this part's first section provides additional information on nature-based solutions.

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A. Overarching Philosophy: Undertaking Mitigation with Nature-Based Solution Techniques

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Nature-based solutions are sustainable planning, design, environmental management and engineering practices that weave natural features or processes into the built environment to build resilient communities and mitigate the impact of climate change. While other organizations may use the terms “green infrastructure” or “natural infrastructure,” the HMA Guide uses the term “nature-based solutions” to refer to an umbrella of strategies including green infrastructure and bioengineered methods.

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Nature-based solutions vary based on scale and location:

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- **Watershed or landscape scale:** These consist of interconnected systems of natural areas and open space. These are large-scale approaches that require long-term planning and coordination, as these projects can affect multiple jurisdictions and fall into the purview of more than one government agency. Examples of different approaches are land conservation, wetland and floodplain restoration and/or protection, greenways, and stormwater parks.

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- **Neighborhood or site scale:** These are distributed stormwater management approaches that manage rainwater where it falls. These approaches can often be built into a site, corridor or neighborhood without requiring additional space. Examples of approaches are rain gardens, green roofs, permeable pavement, tree trenches, vegetated swales, rainwater harvesting, tree canopy and green streets.

7514 ▪ **Coastal areas:** These are nature-based solutions that stabilize the shoreline, reducing
7515 erosion and buffering the coast from storm impacts. While many watershed and
7516 neighborhood-scale solutions work in coastal areas, these systems are designed to support
7517 coastal resilience. Examples of approaches are restoring coastal wetlands, dunes, living
7518 shorelines, oyster reefs and waterfront parks.

7519 Nature-based solutions can help reduce the loss of life and property resulting from some of our
7520 nation’s most common natural hazards. These include:

- 7521 ▪ Riverine flooding.
- 7522 ▪ Urban drainage flooding.
- 7523 ▪ Coastal flooding and storm surge.
- 7524 ▪ Extreme heat.
- 7525 ▪ Drought.
- 7526 ▪ Landslides.

7527 In addition, nature-based solutions can provide short- and long-term environmental, economic and
7528 social benefits that improve a community’s quality of life and make it attractive to new residents and
7529 businesses. A single nature-based project can yield various community benefits that fulfill many
7530 goals. These co-benefits include:

- 7531 ▪ Environmental benefits, such as:
 - 7532 ○ Improved water quality.
 - 7533 ○ Cleaner water supplies.
 - 7534 ○ Healthier wildlife habitats.
 - 7535 ○ Improved air quality.
- 7536 ▪ Economic benefits, such as:
 - 7537 ○ Increased property values.
 - 7538 ○ Improved property tax base.
 - 7539 ○ Green jobs.
 - 7540 ○ Improved triple bottom line.
- 7541 ▪ Social benefits, such as:

- 7542 ○ Added recreational space.
- 7543 ○ Cooler summer temperatures.
- 7544 ○ Improved public health and wellness.

7545 FEMA's HMA programs support incorporating nature-based solutions into all eligible projects. Nature-
 7546 based solutions include green infrastructure methods and bioengineered methods, both of which are
 7547 discussed in more detail below. Projects using nature-based solutions will need to meet all HMA
 7548 eligibility criteria, including demonstrating the project is cost-effective, provides risk reduction
 7549 benefits, and meets environmental and historic preservation (EHP) and floodplain management
 7550 requirements.

7551 **A.1. Green Infrastructure Methods**

7552 Nature-based solutions include green infrastructure, which is a sustainable approach to natural
 7553 landscape preservation and stormwater management that can be used for hazard mitigation
 7554 activities and provide additional ecosystem service benefits. Green infrastructure provides a
 7555 framework and methodology for implementing flood risk reduction and drought mitigation actions in
 7556 a manner that also incorporates ecosystem service benefits and helps build a community's
 7557 resilience to the impacts of climate change and nature-based hazards.

7558 Green infrastructure methods use an ecosystem-based approach to replicate a site's
 7559 predevelopment condition and function. Green infrastructure methods can serve multiple functions.
 7560 Conversely, traditional or gray infrastructure refers to manmade structures that are engineered to
 7561 provide a specific level of service under specific scenarios and generally addresses a single purpose.
 7562 For example, gray infrastructure stormwater management systems seek to move excess water as
 7563 quickly as possible away from homes and properties into storm drains and the stormwater system.
 7564 Green infrastructure seeks to do the opposite by safely capturing as much water as possible on-site
 7565 to facilitate storage, absorption and infiltration. Using green infrastructure, stormwater is typically
 7566 channeled into a basin or swale. They are designed to allow the water to seep or infiltrate into the
 7567 ground and recharge groundwater supplies or to slow its passage into the storm drain during peak
 7568 flow periods to avoid overwhelming the stormwater system. If vegetation is used to help mitigate
 7569 stormwater impacts, the plants also can help stabilize a slope and provide riparian habitat in
 7570 addition to facilitating storage, absorption and infiltration.

7571 Green infrastructure methods lend themselves readily to designing and implementing soil
 7572 stabilization, flood reduction and drought mitigation projects that provide additional ecosystem
 7573 service benefits. Because green infrastructure projects focus on smaller scale, localized conditions,
 7574 they tend to be most effective for higher frequency, lower-impact events. Green infrastructure
 7575 projects can be considered for implementation in a connected system to scale the overall system
 7576 capacity (e.g., a series of bioretention sites along the natural water body or stormwater flow path).
 7577 Green infrastructure methods for stormwater management and flood risk reduction may be
 7578 especially viable in higher density developed areas such as urban and suburban communities. A

7579 benefit of the green infrastructure approach for urban settings is that the project design may include
 7580 dual use as green space or recreation areas when not submerged. Green infrastructure projects can
 7581 also provide additional ecosystem services to address climate change resilience by improving air and
 7582 water quality, reducing urban heat island effects and providing or restoring native plant and wildlife
 7583 conservation and habitat.



7584 Green Infrastructure Methods Resource

- 7585 ▪ U.S. Environmental Protection Agency (EPA) Green Infrastructure webpage:
 7586 <https://www.epa.gov/green-infrastructure>
- 7587 ▪ National Oceanic and Atmospheric Administration (NOAA) Office for Coastal Management
 7588 Digital Coast – Nature-Based Solutions for Coastal Hazards course:
 7589 <https://coast.noaa.gov/digitalcoast/training/green.html>

7590 A.2. Bioengineered Methods

7591 Bioengineering involves techniques that use a combination of biological, ecological and mechanical
 7592 elements to achieve desired mitigation objectives such as soil and shoreline stabilization, flood
 7593 attenuation and wildfire risk reduction. Bioengineering approaches provide a self-stabilizing, long-
 7594 term solution for natural hazard impacts resulting from weather-related factors, construction and
 7595 wildfires. The underlying principle requires the application of an integrated approach that uses sound
 7596 engineering practices together with ecological principles to assess, design, construct and maintain
 7597 living vegetative systems.

7598 Projects will likely involve an interdisciplinary effort between scientists, engineers and landscape
 7599 architects. Conservation districts might be able to provide technical support or recommend suitable
 7600 resources. Well-designed and documented bioengineering approaches incorporated into a project
 7601 may enable the regulatory review to be streamlined. However, under FEMA programs, proposed
 7602 bioengineered projects must also mitigate potential infrastructure damage to meet eligibility
 7603 requirements.

7604 Like green infrastructure, bioengineered methods offer other benefits in addition to mitigating risk
 7605 from a natural hazard event. Properly designed bioengineered projects also can provide economic
 7606 and ecosystem benefits. Once vegetation is established, it requires little maintenance while
 7607 protecting infrastructure from damage. Native plants adapt to local climates without becoming
 7608 invasive, which can yield long-term savings on maintenance. Increases in property values and
 7609 recreational values resulting from aesthetics, improved water and air quality, and maintaining and
 7610 restoring habitats are economic and ecosystem drivers for communities to leverage bioengineering
 7611 principles in projects.

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Bioengineering Resources

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- Mill River Bank Stabilization Project: <https://www.fema.gov/case-study/mill-river-bank-stabilization-project>
- Mitigation Programs and Bioengineering in Southern Utah: <https://www.fema.gov/node/453995>

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B. Project Types

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The following sections highlight common HMA project types. For additional examples of HMA project activities, see FEMA's [Mitigation Action Portfolio](#) (August 2020).

7620 **B.1. Property Acquisition for Open Space**

7621 **B.1.1. PROPERTY ACQUISITION: OVERVIEW**

7622 Generally, FEMA-assisted property acquisition projects consist of a community purchasing at-risk
7623 structures from voluntary sellers and either demolishing the structures or relocating the structures to
7624 a new site outside of the hazard-prone area. The purchased property is then maintained, in
7625 perpetuity, for open-space purposes and to restore or conserve the site’s natural functions.

7626 FEMA generally encourages communities to opt for the acquisition and structure demolition model.
7627 These projects are simpler because they typically require minimal EHP review, are considerably less
7628 expensive and allow homeowners to determine where to relocate.

7629 Property acquisition and structure relocation typically involve the acquisition of land and the physical
7630 relocation of an existing structure on that land to an area outside of a hazard-prone area, such as
7631 outside of the Special Flood Hazard Area (SFHA) or a regulatory erosion zone. Relocation must
7632 conform to all applicable state and local regulations.

7633 Federal law requires properties acquired with FEMA assistance in structure demolition or relocation
7634 projects be dedicated and maintained in perpetuity as compatible with open space for the
7635 conservation of natural floodplain functions. These compatible open space uses may include parks
7636 for outdoor recreational activities, wetlands management and natural reserves, cultivation, grazing,
7637 camping (with some safety-related exceptions) and unimproved, unpaved parking lots. The regulation
7638 also authorized FEMA to allow other uses the agency determines are compatible with open space
7639 because these uses conserve the natural floodplain function.³³⁵

7640 Establishing and maintaining open space uses in perpetuity is accomplished by recording deed
7641 restrictions consistent with the [FEMA Model Deed Restriction](#). Recipients and subrecipients are
7642 responsible for oversight in ensuring and enforcing proper land use and coordinating with and
7643 gaining approval from FEMA on any future land use change or property disposition issues.³³⁶ FEMA
7644 must review and approve the proposed land use of all property acquired for open space purposes,
7645 unless the use is grading and seeding of the former building site.³³⁷

7646 No new structures will be built on the property, except:³³⁸

- 7647 ▪ Public buildings that are open on all sides and functionally related to a designated open
7648 space or recreational use.

³³⁵ [44 Code of Federal Regulations \(CFR\) § 80.19\(a\)](#)

³³⁶ [44 CFR § 80.5](#)

³³⁷ Under [44 CFR § 80.5\(a\)\(4\)](#), FEMA is responsible for “making determinations on the compatibility of proposed uses with the open space purpose, in accordance with 44 CFR § 80.19.” FEMA determined that [grading and seeding is generally not a separate use; rather, grading and seeding of the building site is necessary and a reasonable part of a demolition.](#)

³³⁸ [44 CFR § 80.19\(a\)\(2\)](#)

- 7649 ▪ Public restrooms.
- 7650 ▪ Structures that are compatible with open space, recreational or wetlands management use
- 7651 and applicable floodplain management policies and practices, and for which compatibility is
- 7652 confirmed in writing by the FEMA regional administrator before construction of the structures
- 7653 begins.
- 7654 ▪ Structures described in the above three bullets that will be elevated or floodproofed to the
- 7655 Base Flood Elevation plus one foot of freeboard and that meet the applicable requirements
- 7656 of the National Flood Insurance Program (NFIP) floodplain management regulations in [44](#)
- 7657 [Code of Federal Regulations \(CFR\) § 60.3](#).³³⁹

7658 **B.1.2. PROPERTY ACQUISITION: ELIGIBILITY**

7659 To receive assistance for property acquisition and structure demolition or relocation projects that

7660 create open space, applicants and subapplicants must meet the regulatory requirements in [44 CFR](#)

7661 [part 80](#) and the criteria outlined below and in [Part 4](#). A project may not be framed in a manner that

7662 has the effect of circumventing these requirements.³⁴⁰

7663 **B.1.2.1. Eligibility Criteria**

7664 For a property to be eligible for FEMA-assisted acquisition, the subapplicant must acquire the full fee

7665 title of the property (except for any easements and encumbrances that FEMA determines are

7666 compatible with open space) from a willing, voluntary seller, or must retain such interest.³⁴¹ The

7667 subapplicant must commit not to use eminent domain if the property owner chooses not to

7668 participate and must verify that the property is not needed as part of an intended or planned HMA

7669 project.³⁴² Once assistance has been awarded for the project, a property may not be subdivided

7670 before it is acquired except for portions outside the SFHA or any risk zone identified by FEMA.³⁴³

7671 Subrecipients must apply deed-restriction language to all acquired properties to ensure the property

7672 is maintained in perpetuity as open space consistent with natural floodplain functions, as agreed to

7673 by accepting FEMA mitigation award assistance.³⁴⁴ Deed restriction language is applied to acquired

7674 properties by recording the open space and deed restrictions. Modifications to the language in the

7675 [FEMA Model Deed Restriction](#) can only be made with prior approval from the FEMA Office of Chief

7676 Counsel through the appropriate FEMA regional office.

7677 A property is eligible for acquisition if it meets all the following requirements:

³³⁹ [44 CFR § 80.19\(a\)\(3\)](#)

³⁴⁰ [44 CFR § 80.7](#)

³⁴¹ [44 CFR § 80.11\(d\)](#)

³⁴² [44 CFR § 80.11\(a\)](#)

³⁴³ [44 CFR § 80.11\(c\)](#)

³⁴⁴ [44 CFR § 80.11\(f\)](#)

- 7678 ▪ FEMA approves the proposed land use of all property acquired for open space purposes,
 7679 unless the use is limited to grading and seeding of the former building site (FEMA has
 7680 determined that grading and seeding is generally not a separate use; rather grading and
 7681 seeding of the building site is necessary and reasonable part of a demolition. Additional
 7682 approval is not required if the activity is limited to grading and seeding of the former building
 7683 site).
- 7684 ○ FEMA regional administrators must review each request to determine if the proposal is
 7685 compatible with the purpose of open space as stated in regulation and consistent with
 7686 the deed restrictions, grant agreements, the HMA Guide or most current edition, and
 7687 floodplain management requirements.³⁴⁵
- 7688 ○ FEMA reviews open space land use either when it reviews a subapplication for
 7689 acquisition of land for open space or once the acquisition is completed, if the
 7690 subrecipient proposes a change in land-use postacquisition.
- 7691 ▪ It will be acquired from a willing, voluntary seller.
- 7692 ○ The owner of the acquired property must voluntarily agree to sell the land.³⁴⁶ During the
 7693 development of an acquisition project for open space, property owners are responsible
 7694 for notifying the subapplicant of their interest in participating in the proposed project.
 7695 They must provide all information requested by the subapplicant and complete all
 7696 actions that are required to complete the subapplication and to implement the property
 7697 acquisition and structure demolition or relocation.³⁴⁷
- 7698 ○ It contains an at-risk structure that may or may not have been damaged or destroyed
 7699 because of a hazard event.³⁴⁸ In certain circumstances, undeveloped, flood-prone or at-
 7700 risk land that is part of a project with an adjacent eligible property with one or more
 7701 existing structure(s), and the total project remains cost-effective, may also be eligible.³⁴⁹
- 7702 ▪ The subapplicant acquires or retains fee title, except for encumbrances FEMA determines
 7703 are compatible with open space uses, as part of the project implementation.³⁵⁰
- 7704 ▪ It is not contaminated with hazardous materials at the time of acquisition other than
 7705 incidental demolition or household waste.³⁵¹

³⁴⁵ [44 CFR § 80.5\(a\)](#)

³⁴⁶ [44 CFR § 80.11\(a\)](#)

³⁴⁷ [44 CFR § 80.5\(d\)](#)

³⁴⁸ [44 CFR § 80.11\(b\)](#)

³⁴⁹ [44 CFR § 80.11\(b\)](#).

³⁵⁰ [44 CFR § 80.11\(d\)](#)

³⁵¹ [44 CFR § 80.11\(e\)](#)

7706 ○ It is not part of an intended, planned or designated project area for which the land is to
7707 be acquired by a certain date and/or where there is an intention to use the property for
7708 any public or private use that is inconsistent with the open space deed restrictions and
7709 FEMA acquisition requirements (e.g., roads, flood risk reduction levees). The property
7710 acquired or from which a structure is removed must be dedicated as open space in
7711 perpetuity consistent with the regulations in [44 CFR part 80](#).³⁵²

7712 Other eligibility requirements are as follows:

7713 ■ In accordance with the Coastal Barrier Resources Act of 1982 ([CBRA](#)),³⁵³ HMA programs may
7714 assist projects in Otherwise Protected Areas if they do not require flood insurance after
7715 project completion.³⁵⁴ Acquisitions in a John H. Chafee Coastal Barrier Resources System
7716 (CBRS) unit are eligible only if they qualify for one of the exceptions in section 6 of the
7717 CBRA.³⁵⁵ That is, acquisitions are eligible if they are consistent with the purposes of the
7718 CBRA and qualify as projects for the study, management, protection and enhancement of
7719 fish and wildlife resources and habitats.³⁵⁶ Acquisitions are subject to the regulatory
7720 restrictions of allowable uses under [44 CFR § 80.19](#) and eligibility requirements of [44 CFR §](#)
7721 [206.434](#).

7722 ○ All projects that occur in or adjacent to CBRS units must meet one of the CBRA
7723 exceptions and require that FEMA consult with the appropriate U.S. Fish and Wildlife
7724 Service Ecological Services field office.

7725 ○ Proposed actions carried out within or adjacent to an Otherwise Protected Areas do not
7726 require consultation with U.S. Fish and Wildlife Service.

7727 ■ Any structure that is relocated must be placed outside the SFHA and outside any regulatory
7728 erosion zone or other mapped hazard area, and the relocation must conform to any other
7729 applicable state or local land use regulations.

³⁵² [44 CFR § 80.11\(f\)](#)

³⁵³ Public Law 97-348 (October 18, 1982), as amended. To remove federal incentives to develop coastal areas, the CBRA designated relatively undeveloped land along the Atlantic and Gulf Coast as part of the John H. Chafee Coastal Barrier Resources System (CBRS) and made these areas ineligible for most new federal assistance.

³⁵⁴ Congress reauthorized the CBRA with the Coastal Barrier Improvement Act of 1990 (Public Law 101-591 [November 16, 1990]), expanding the CBRS to include undeveloped coastal barriers along the Keys, Great Lakes, Puerto Rico and the U.S. Virgin Islands. It also added a new category of undeveloped barriers called [Otherwise Protected Areas](#). Otherwise Protected Areas consist of conservation or recreation areas such as national wildlife refuges, state and national parks, local conservation areas, and private conservation areas, although they may also contain private areas not for conservation.

³⁵⁵ [16 United States Code \(U.S.C.\) § 3505](#)

³⁵⁶ [16 U.S.C. § 3505\(a\)\(6\)\(A\)](#), [44 CFR § 206.345](#)

7730 **B.1.2.2. Eligible Activities**

7731 Eligible activities include property acquisition and structure demolition, as well as property
 7732 acquisition and structure relocation. These activities are eligible under HMGP, HMGP Post Fire, BRIC
 7733 and FMA; however, for purposes of Flood Mitigation Assistance (FMA), only property acquisition and
 7734 structure demolition or relocation based on flooding is eligible.³⁵⁷

7735 The following subsections outline special considerations.

7736 **B.1.2.2.1. Pre-Award Demolition Activities**

7737 FEMA’s regulation on eligible costs for acquisitions states that the agency may assist eligible pre-
 7738 award costs at its discretion as assistance is available.³⁵⁸ Recipients and subrecipients may be
 7739 reimbursed for eligible pre-award costs for activities directly related to the project proposal’s
 7740 development. Demolition, construction and ground disturbing activities that were implemented,
 7741 initiated or completed prior to an award generally are not eligible, and FEMA generally does not
 7742 reimburse costs for these activities.³⁵⁹

7743 If FEMA determines a property owner used private funds to demolish an event-damaged structure,
 7744 and at the time of the demolition the property had not been in a subapplication submitted to FEMA,
 7745 the demolition is not a connected action. Therefore, the demolition is not subject to FEMA review and
 7746 approval for EHP compliance and the costs of the demolition are not considered pre-award costs.
 7747 Therefore, the demolition does not preclude a finding of project eligibility. If the demolition is not
 7748 connected to a FEMA federal action, no FEMA EHP review of the demolition is necessary, and
 7749 demolition costs will not be eligible for reimbursement under HMA programs. The demolition must be
 7750 in accordance with state and local legal requirements and any applicable federal law. However,
 7751 FEMA will continue to analyze the cumulative impacts of any privately conducted demolition and
 7752 subsequent FEMA-assisted projects as required under the National Environmental Policy Act as part
 7753 of its EHP review process.³⁶⁰

7754 The federal action is recognized as beginning when the project subapplication is submitted to FEMA.
 7755 Properties where pre-award demolition activities have occurred prior to the subapplication being
 7756 submitted to FEMA may be eligible when:

- 7757 ▪ No demolition is underway at the time the subapplication is submitted. A homeowner-
 7758 initiated demolition must be fully completed prior to that property being submitted to FEMA.

³⁵⁷ [44 CFR § 77.6](#), [44 CFR part 80](#)

³⁵⁸ [44 CFR § 80.9\(b\)](#)

³⁵⁹ [44 CFR § 80.9\(b\)](#), [2 CFR § 200.458](#)

³⁶⁰ Public Law 91-190 (January 1, 1970), as amended

7759 ▪ Demolition costs are not included in the subapplication. Private individuals have demolished
 7760 damaged structures using private funds or other non-federal funds prior to application for
 7761 HMA.

7762 ▪ The demolition is in accordance with state and local legal requirements and any applicable
 7763 federal law.

7764 Once the property is included in an HMA subapplication submitted to FEMA, work must not be
 7765 initiated prior to issuance of the subaward. Otherwise, the work would be a connected action and
 7766 subject to FEMA review.

7767 **B.1.2.2.2. Sinkholes**

7768 Structures that show signs of damage that was determined to have been caused by sinkhole activity,
 7769 or structures that have moved or have begun to move downward into a sinkhole, are eligible for
 7770 consideration for acquisition, relocation, or demolition under the Hazard Mitigation Grant Program
 7771 (HMGP), Hazard Mitigation Program Post Fire (HMGP Post Fire) and Building Resilient Infrastructure
 7772 and Communities (BRIC).

7773 Examples of indicators of sinkhole damage on or related to the structure, when accompanied by
 7774 evidence of a sinkhole, may include:

- 7775 ▪ The descending of the structure below the original grade of construction.
- 7776 ▪ Doors and windows that fail to close properly or exhibit changed behavior.
- 7777 ▪ Cracks in walls, floors, adjacent pavement and the ground surface.
- 7778 ▪ Floors with sloping or unevenness that had not been apparent previously.

7779 Sinkhole development may also be determined by observing disturbances around the affected
 7780 structure. These site disturbances can support a determination that a sinkhole may be the cause of
 7781 the structural damage listed above.

7782 To be eligible for assistance, the applicant and subapplicant must submit supporting documentation
 7783 that the cause of structural damage is sinkhole-related and at least partially due to a natural
 7784 geologic process. The documentation must be prepared and signed by an appropriately registered,
 7785 certified, or licensed state or local professional engineer, architect, landscape architect or geologist.
 7786 Documentation of disturbances around the structure may also be included; however, the primary
 7787 eligibility factor must be evident from structural damage from a sinkhole.

7788 All other applicable eligibility considerations described in the other parts of the HMA Guide also
 7789 apply.³⁶¹

7790 **B.1.2.3. Ineligible Activities**

7791 Activities must be consistent with the criteria described in [Part 4](#).

7792 Property acquisitions and demolition or relocation activities are not eligible for assistance in the
 7793 following circumstances:

- 7794 ▪ Mitigation projects sited within the SFHA if the jurisdiction is not participating in the NFIP.
- 7795 ▪ Structures that had previously received HMA funds but did not comply with the requirement
 7796 to maintain flood insurance for the life of the property.³⁶²
- 7797 ▪ Activities for which FEMA determines more specific authority lies with another federal agency
 7798 or program.

7799 **B.1.2.4. Cost-Effectiveness**

7800 Applicants and subapplicants must demonstrate that mitigation projects are cost-effective consistent
 7801 with the requirements described in Cost-Effectiveness.

7802 **B.1.2.4.1. Pre-Calculated Benefits for Acquisitions**

7803 FEMA determined the national average for benefits for acquisition projects is \$323,000. Based on
 7804 this analysis, FEMA developed pre-calculated benefits for acquisition projects located in the SFHA (1-
 7805 percent annual chance floodplain) and for certain projects, such as Repetitive Loss or Severe
 7806 Repetitive Loss acquisitions, located outside the SFHA. For Benefit-Cost Analysis (BCA) purposes,
 7807 acquisition/demolition and acquisition/relocation projects are treated the same.

7808 An overview of the pre-calculated benefits to determine cost-effectiveness is provided in [Table 18](#).

7809 **Table 18. Eligibility for Pre-Calculated Benefits Based on Structure Type and Location**

Structure Location	Eligible Use Criteria
Acquisitions Within Special Flood Hazard Areas	
Single-Unit Residential Structure	The cost of the acquisition is less than or equal to \$323,000.

³⁶¹ [44 CFR part 80](#)

³⁶² [42 U.S.C. § 4012\(a\)](#)

Structure Location	Eligible Use Criteria
Multi-unit Residential Structure	The cost of the acquisition is less than or equal to \$323,000 multiplied by the number of ground- or first-floor units.
Nonresidential Structure	The cost of the acquisition is less than or equal to \$323,000, and the structure must be occupiable.
Acquisitions Outside Special Flood Hazard Areas	
Single-Unit Residential Structure Designated Repetitive Loss, Severe Repetitive Loss, or with the Lowest Floor Elevation below the Base Flood Elevation	The cost of the acquisition is less than or equal to \$323,000.
Multi-unit Residential Structure Designated Repetitive Loss, Severe Repetitive Loss, or with the Lowest Floor Elevation below the Base Flood Elevation	The cost of the acquisition is less than or equal to \$323,000 multiplied by the number of ground- or first-floor units.
Nonresidential Structure Designated Repetitive Loss, Severe Repetitive Loss, or with the Lowest Floor Elevation below the Base Flood Elevation	The cost of the acquisition is less than or equal to \$323,000, and the structure must be occupiable.

7810

7811 **B.1.2.4.1.1. PRE-CALCULATED BENEFITS FOR STRUCTURES LOCATED IN THE SFHA**

7812 FEMA has determined that the acquisition of a structure located in the SFHA, as delineated on the
 7813 Flood Insurance Rate Map (FIRM) or based on best available data, with total project costs less than
 7814 or equal to \$323,000, is considered cost-effective.³⁶³ For projects that contain multiple structures,
 7815 the average cost of all structures in the project must meet the stated criterion (provided all
 7816 structures are within the SFHA).

7817 The specific geographic location of structures can increase acquisition costs. The benefit amounts
 7818 identified above may be adjusted by using the most current location factors included in industry-
 7819 accepted construction cost guides. If a multiplier is used, a copy of the source document must be
 7820 included as part of the grant application.

7821 The applicant or subapplicant must provide a map that clearly identifies the structure’s footprint and
 7822 delineates the SHFA, using the FIRM or best available data. If any part of the structure lies within the
 7823 SFHA, the applicant or subapplicant can use the pre-calculated benefit value to demonstrate cost-
 7824 effectiveness. No other detailed analysis is required. These pre-calculated benefits can be used in
 7825 riverine and coastal SFHAs.

³⁶³ Total project costs include all applicable costs, not just the construction costs or federal share.

7826 For up-to-date information on the dollar value of pre-calculated benefits visit FEMA’s [“Benefit-Cost](#)
7827 [Analysis”](#) webpage.

7828 **B.1.2.4.1.2. PRE-CALCULATED BENEFITS FOR PROPERTIES LOCATED OUTSIDE THE SFHA**

7829 FEMA has determined that the acquisition of a structure designated as Repetitive Loss or Severe
7830 Repetitive Loss, regardless of location within or outside the SFHA, with total project costs less than
7831 or equal to \$323,000, is considered cost-effective.³⁶⁴ To use this pre-calculated benefit to
7832 demonstrate cost-effectiveness, the structure(s) in the acquisition project must meet one of the
7833 following definitions for Repetitive Loss or Severe Repetitive Loss.

7834 Repetitive Loss refers to a structure or property meeting either (1) or (2) from the following
7835 definitions:

7836 1. A structure that meets one of the two following qualifiers:

7837 a. Two or more claims of more than \$1,000 paid by the National Flood Insurance
7838 Program (NFIP) within any rolling 10-year period since 1978.

7839 b. Two or more claims (building payments only) that, on average, equal or exceed 25
7840 percent of the market value of the property.³⁶⁵

7841 2. A structure covered by a contract for flood insurance made available under the NFIP that meets
7842 both of the two following qualifiers:

7843 a. Has incurred flood-related damage on two occasions, in which the cost of the repair,
7844 on average, equaled or exceeded 25 percent of the market value of the structure at
7845 the time of each such flood event.

7846 b. At the time of the second incidence of flood-related damage, the contract for flood
7847 insurance contains increased cost of compliance coverage.³⁶⁶

7848 Severe Repetitive Loss refers to a structure or property meeting either (1) or (2) from the following
7849 definitions:

7850 1. A structure that meets one of the two following qualifiers:

7851 a. Received four or more separate claim payments of more than \$5,000 each (including
7852 building and contents payments).

³⁶⁴ Total project costs include all applicable costs, not just the construction costs or federal share.

³⁶⁵ [44 C.F.R. § 209.2](#) and part 61, Appendices A(1)-A(3); FEMA, National Flood Insurance Program, [Flood Insurance Manual](#), Appendix A, pages 11-12, and Appendix E, page 5 (April 2021); and FEMA, National Flood Insurance Program, [Community Rating System Coordinator’s Manual](#), pages 120-7 (2017)

³⁶⁶ [42 U.S.C. § 4121\(a\)\(7\)](#); and [44 C.F.R. § 77.2\(i\)](#).

- 7853 b. Received two or more separate claim payments (building payments only) where the
7854 total of the payments exceeds the current value of the property.³⁶⁷
- 7855 2. A structure covered by a contract for flood insurance made available under the NFIP that has
7856 incurred flood-related damage and meets one of the two following qualifiers:
- 7857 a. Four or more separate claims payments (includes building and contents) have been
7858 made under flood insurance coverage with the amount of each such claim exceeding
7859 \$5,000 and with the cumulative amount of such claims payments exceeding
7860 \$20,000.
- 7861 b. At least two separate claims payments (includes only building) have been made
7862 under such coverage, with the cumulative amount of such claims exceeding the
7863 market value of the insured structure.³⁶⁸

7864 Alternatively, FEMA has determined that the acquisition of a structure, where the Lowest Floor
7865 Elevation is lower than the Base Flood Elevation and the total project costs less than or equal to
7866 \$323,000, is considered cost-effective.³⁶⁹ For projects that contain multiple structures, the average
7867 cost of all structures in the project must meet the stated criterion.

7868 If using the Lowest Floor Elevation and Base Flood Elevation to qualify, the Lowest Floor Elevation
7869 and Base Flood Elevation should be provided for each structure. No other detailed analysis is
7870 required.

7871 The specific geographic location of structures can increase acquisition costs. The benefit amounts
7872 identified above may be adjusted by using the most current location factors included in industry-
7873 accepted construction cost guides. If a multiplier is used, a copy of the source document must be
7874 included as part of the grant application.

7875 For up-to-date information on the dollar value of the pre-calculated benefit, see FEMA's "[Benefit-Cost
7876 Analysis](#)" webpage.

7877 **B.1.2.4.1.3. PRE-CALCULATED BENEFITS FOR MULTI-UNIT RESIDENTIAL STRUCTURES**

7878 If a multi-unit residential structure would otherwise qualify to use the acquisition pre-calculated
7879 benefit of \$323,000, the benefit may be adjusted by multiplying the number of ground- or first-floor
7880 units by \$323,000. For example, the pre-calculated benefit for an eight-unit apartment building with
7881 four ground-floor units would be \$1,292,000 (\$323,000 multiplied by the number of ground- or first-
7882 floor units [in this case, four]). If the entire project cost is less than that amount, the project could
7883 use the pre-calculated benefit for acquisitions provided that it meets the other requirements.

³⁶⁷ [42 U.S.C. § 4014\(h\)](#); FEMA, National Flood Insurance Program, [Flood Insurance Manual](#), Appendix I, page 1, and Appendix L, page 8 (April 2021); and FEMA, National Flood Insurance Program, [Community Rating System Coordinator's Manual](#), page 120-8 (2017).

³⁶⁸ [42 U.S.C. § 4104c\(h\)\(3\)](#); and [44 CFR § 77.2\(j\)](#).

³⁶⁹ Total project costs include all applicable costs, not just the construction costs or federal share.

7884 Documentation such as building plans, should be provided to justify the number of first- or ground-
7885 floor units.

7886 For up-to-date information on the dollar value of pre-calculated benefits, visit FEMA’s [“Benefit-Cost
7887 Analysis”](#) webpage.

7888 **B.1.2.4.1.4. PRE-CALCULATED BENEFITS FOR NONRESIDENTIAL STRUCTURES**

7889 The pre-calculated benefit for acquisitions may be used for nonresidential structures if they would
7890 otherwise qualify by meeting the criteria described above (i.e., the structure is located in an SFHA, is
7891 designated as Repetitive Loss or Severe Repetitive Loss, or has its Lowest Floor Elevation below the
7892 Base Flood Elevation). However, all structures counted must be occupiable, meaning they are
7893 designed to have people living or working in them. Small ancillary structures such as sheds,
7894 outhouses and garages may not be counted in the number of structures, although they may be
7895 demolished as part of the project.

7896 For up-to-date information on the dollar value of the pre-calculated benefit, see FEMA’s [“Benefit-Cost
7897 Analysis”](#) webpage.

7898 **B.1.2.4.2. Landslide Hazard Benefit-Cost Analysis**

7899 The FEMA [BCA Toolkit](#) includes a methodology for calculating the Benefit-Cost Ratio (BCR) for the
7900 acquisition of properties in landslide hazard areas where there is an immediate threat of
7901 catastrophic slope failure (within five years of application development).³⁷⁰ Applicants are required to
7902 complete the BCR based on the replacement cost value, the number of occupants and the project
7903 costs; the BCA Toolkit will calculate all other values automatically using standard FEMA values and
7904 methodologies. The BCR calculation is based on having no recurrence interval because once the
7905 landslide occurs there would be a catastrophic failure, and the structure would not be at risk for
7906 further landslides.

7907 **Immediate Threat**

7908 An immediate threat is defined in [44 CFR § 206.221\(c\)](#) as “the threat of additional damage or
7909 destruction from an event which can reasonably be expected to occur within five years” (e.g., a
7910 20 percent chance of occurrence per year).

7911 **B.1.2.4.3. Sinkhole Hazard Benefit-Cost Analysis**

7912 FEMA has developed a methodology for calculating the BCR for the acquisition of residential and
7913 nonresidential properties in sinkhole hazard areas. This methodology does not incorporate a
7914 recurrence interval because once a sinkhole event occurs, failure would be catastrophic, and a total
7915 loss would result. Residential acquisition benefits are based on replacement cost value of the

³⁷⁰ [44 CFR § 206.221\(c\)](#)

7916 structure and contents, displacement costs and five percent of the value of human life. Benefits for
 7917 nonresidential acquisitions are based on the replacement cost value, relocation costs and business
 7918 losses. For either type of acquisition, project costs include demolition and disposal or relocation.

7919 Costs are based on expenses required to purchase the house at the pre-event market value (like in
 7920 routine flood-hazard acquisitions). Applicants are required to attest that the structure is within five
 7921 years of imminent collapse because of landslide hazards. They may obtain this determination from a
 7922 state or local professional geologist or engineer. If they hire a professional geologist or engineer to
 7923 make the determination, the costs for those services may be eligible as a pre-award expense.

7924 **B.1.2.5. Feasibility and Effectiveness**

7925 Projects must be consistent with [Part 4](#). Mitigation projects assisted by HMA programs must be both
 7926 feasible and effective at mitigating the risks of the hazard(s) for which the project was designed. A
 7927 project’s feasibility is demonstrated through conformance with accepted engineering practices,
 7928 established codes, standards, modeling techniques or best practices.

7929 **B.1.2.6. Environmental and Historic Preservation**

7930 All subapplications submitted to FEMA must meet the EHP criteria in [Part 4](#). All subapplications must
 7931 provide the information described in [Part 6](#) so that FEMA may perform the EHP review.

7932 Properties that are contaminated with hazardous materials are not eligible for acquisition.³⁷¹ The
 7933 subrecipient must ensure a property with past or present commercial or industrial use and any
 7934 adjacent properties suspected of having hazardous materials at the site are not contaminated when
 7935 the project application is approved.

7936 If FEMA selects the subapplication for further review, the subrecipient must meet the requirements
 7937 of the EPA “all appropriate inquiries” rule,³⁷² including contracting with an appropriately qualified
 7938 environmental professional to perform a Phase I environmental site assessment as defined by the
 7939 rule. Any assessment must be in accordance with the procedures of the most current ASTM
 7940 International Standard [E1527: Standard Practice for Environmental Site Assessments: Phase I](#)
 7941 [Environmental Site Assessment Process](#) or ASTM [E2247: Standard Practice for Environmental Site](#)
 7942 [Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property](#). The
 7943 costs for meeting these requirements are considered eligible project costs if such costs are included
 7944 in the project budget.

7945 In accordance with these criteria and [44 CFR § 80.17\(a\)](#), the subrecipient shall:

- 7946 ▪ Conduct interviews with past and present owners, operators and occupants.

³⁷¹ [44 CFR § 80.11\(e\)](#)

³⁷² [40 CFR part 312](#)

- 7947 ▪ Search for recorded environmental cleanup liens.
 - 7948 ▪ Review federal and state, local, tribal and territorial government records.
 - 7949 ▪ Conduct visual inspections of the facility and of adjoining properties.
- 7950 The purpose of the Phase I environmental site assessment is to identify conditions that are indicative
7951 of releases and threatened releases of hazardous substances, pollutants, contaminants, petroleum
7952 and petroleum products, and controlled substances on, at, in or to the subject property by gathering
7953 the following types of information about the subject property:
- 7954 ▪ Current and past property uses and occupancies.
 - 7955 ▪ Current and past uses of hazardous substances.
 - 7956 ▪ Waste management and disposal activities that could have caused releases or threatened
7957 releases of hazardous substances.
 - 7958 ▪ Current and past corrective actions and response activities undertaken to address past and
7959 ongoing releases of hazardous substances.
 - 7960 ▪ Engineering controls.
 - 7961 ▪ Institutional controls.
 - 7962 ▪ Current and past uses and conditions of adjoining properties and the surrounding area
7963 (consistent with ASTM E1527) that could be considered a recognized environmental
7964 condition (i.e., the presence or likely presence of any hazardous substances or petroleum
7965 products in, on or at the property).
- 7966 The subrecipient must gather all publicly available information obtainable from its source within
7967 reasonable time and cost constraints and that can practicably be reviewed.
- 7968 If the Phase I environmental site assessment “all appropriate inquiries” report identifies the
7969 presence of hazardous substances, pollutants, contaminants, petroleum and petroleum products, or
7970 controlled substances on, at or in the subject property, the subrecipient must require the owner to
7971 remove the materials or remediate the property in accordance with any applicable federal, state,
7972 local, tribal or territorial government requirements. If a Phase II environmental site assessment (to
7973 evaluate suspected areas and to identify the nature and extent of contamination on, at, in or to the
7974 property) is required, the costs of this study are not eligible mitigation grant project costs.
7975 Additionally, the cost of a Phase II environmental site assessment (to determine remediation plans,
7976 cleanup and certification of the property) is not an eligible mitigation grant project cost.

7977 A contaminated property must be certified clean,³⁷³ which requires a letter from the appropriate
 7978 federal, state, local, tribal or territorial entity stating that no further remedial action is required to
 7979 protect human health or the environment. A contaminated property must be certified clean before
 7980 any interest in the property is purchased. The seller must also agree to indemnify the recipient, FEMA
 7981 and the subrecipient for any liability arising from previous property contamination.

7982 The *Acquisition Demolition-Required Information for EHP Review* job aid (December 2016) lists the
 7983 documentation needed for FEMA to complete the EHP compliance review process for each project.

7984 **B.1.3. PROPERTY ACQUISITION: APPLICATION AND SUBMISSION INFORMATION**

7985 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
 7986 should have a scoping narrative in accordance with [Part 6](#). Project-specific criteria are highlighted
 7987 below.

7988 FEMA may request additional information after the subapplication has been submitted to ensure
 7989 that all necessary information is received. However, all information required by the regulations and
 7990 the HMA Guide must be received before FEMA can make an assistance award decision or final
 7991 approval.

7992 Subapplicants are responsible for meeting the requirements and time frames in [44 CFR § 80.13](#) and
 7993 for providing the information that is necessary for the applicant and FEMA to determine the eligibility
 7994 of the project as described in the subapplication. The subapplication must also contain property and
 7995 project information, including the project description and EHP information.

7996 For property acquisition projects, the subapplication must include the following:

- 7997 ▪ The value of each property (pre-event or current, as appropriate) and documentation
 7998 demonstrating how the market value was determined.
- 7999 ▪ An appeal or reconsideration process for property owners who dispute the purchase offer
 8000 property valuation.
- 8001 ▪ Statement of Assurances.
- 8002 ▪ A sample of the deed restriction.
- 8003 ▪ Property owner documentation.
- 8004 ▪ Voluntary interest documentation.
- 8005 ▪ Certification of owner status for pre-event value.

³⁷³ [44 CFR § 80.17\(a\)](#)

- 8006 ▪ Consultation regarding other ongoing federal activities.

8007 **B.1.3.1. Clear Title**

8008 The subrecipient must conduct a title search for each property it plans to acquire. The purpose of the
 8009 title search is to ensure the owner is the sole and actual titleholder to the property, to identify other
 8010 persons with a property interest if the owner is not the sole and actual titleholder, and to ensure the
 8011 title is clear (i.e., no mortgages or liens are outstanding on the sale of the property). In addition, the
 8012 property must not have easements or other encumbrances that are incompatible with open space
 8013 and would make the property either ineligible for acquisition or noncompliant with FEMA’s open
 8014 space land-use restrictions.

8015 All known encumbrances that are incompatible with open space use must be revised or extinguished
 8016 to ensure the property use is consistent with the open space requirements in [44 CFR part 80](#) and
 8017 the HMA Guide. Such encumbrances include any encumbrance providing an interest in subsurface
 8018 resource rights, whether the interest involves an implicit right for surface access to the subsurface
 8019 resource. To demonstrate a clear fee title, the applicant will obtain a title insurance policy reflecting
 8020 that all incompatible easements or other encumbrances to the title have been extinguished.³⁷⁴

8021 If evidence obtained during the review indicates long-dormant subsurface rights (usually exceeding
 8022 50 years or beyond the reach of a standard title search) and the subsurface owner’s identity is
 8023 unknown or otherwise not reasonably ascertainable, FEMA may approve the eligibility of the
 8024 acquisition on a case-by-case basis. If a right to access a subsurface resource is discovered and
 8025 asserted after the acquisition, the recipient and subrecipient are required to take all appropriate
 8026 action to enforce the open space restrictions required by [44 CFR § 80.19](#).

8027 Other title-related requirements are as follows:

- 8028 ▪ A title insurance policy demonstrating the clear title must be obtained for each approved
 8029 property that will be acquired.
- 8030 ▪ A physical site inspection for each property must be conducted to verify there are no physical
 8031 encumbrances to the property (a site survey may be necessary to clearly establish property
 8032 boundaries).
- 8033 ▪ The property title must be transferred by a warranty deed in all jurisdictions that recognize
 8034 warranty deeds.
- 8035 ▪ All incompatible easements or encumbrances must be extinguished.

³⁷⁴ [44 CFR § 80.17\(b\)](#)

- 8036 ▪ The subrecipient or qualifying conservation organization must take possession at
8037 settlement.³⁷⁵

- 8038 ▪ The subrecipient must record the deed at the same time as settlement along with the
8039 program deed restrictions.

- 8040 ▪ The deed transferring title to the property and the program deed restrictions will be recorded
8041 according to state law and within 14 calendar days after the settlement.

- 8042 ▪ All property transfers must be consistent with [44 CFR part 80](#) and the HMA Guide.

8043 **B.1.3.2. Statement of Voluntary Participation**

8044 The Statement of Voluntary Participation formally documents the Notice of Voluntary Interest and
8045 information related to the purchase offer. The subrecipient must provide FEMA with a signed copy of
8046 the Statement of Voluntary Participation for each property post-award. Subrecipients may choose to
8047 use their own modified version of the Statement of Voluntary Participation if it contains all elements
8048 of FEMA’s Statement of Voluntary Participation and with prior approval from FEMA.

8049 Participation is not voluntary for tenants of properties to be acquired and therefore tenants may be
8050 entitled to benefits under the Uniform Relocation Assistance and Real Property Acquisition Policies
8051 Act of 1970 (URA).³⁷⁶ For more information, see [B.1.3.7.2. Tenants](#).

8052 Participation in property acquisition and structure demolition or relocation projects by property
8053 owners is voluntary. Prospective participants must be informed in writing that participation in the
8054 program is voluntary and that the subapplicant will not use its eminent domain authority to acquire
8055 their property for the project purposes if negotiations fail and the property owner(s) chooses not to
8056 participate. Documentation of voluntary interest must be signed by each property owner and should
8057 be obtained as early in the project development as possible. The documentation must be submitted
8058 as specified in [44 CFR § 80.13](#). A Notice of Voluntary Interest can be documented using individually
8059 signed statements or a group sign-up sheet. The documentation must include the printed name of
8060 property owner(s), property address, contact information and signature of the interested property
8061 owner(s) associated with each property, and clear acknowledgment by every property owner of the
8062 following language:

8063

*This project for open space acquisition is voluntary and neither the [insert applicant name]
8064 nor the [insert subapplicant name] will use its eminent domain authority to acquire the
8065 property for open space purposes should negotiations fail and the property owner chooses
8066 not to participate.*

³⁷⁵ [44 CFR § 80.3\(i\)](#)

³⁷⁶ Public Law 91-646 (January 2, 1971), as amended

8067 During project implementation, the subrecipient must execute a more formal Statement of Voluntary
8068 Participation with the owner(s) of each property identified in the subapplication scope of work.

8069 **B.1.3.3. Statement of Assurances**

8070 Subapplications for property acquisition and structure demolition or relocation must include the
8071 FEMA Statement of Assurances. The FEMA Statement of Assurances must be signed by the
8072 subapplicant’s authorized agent. The Statement of Assurances must provide acknowledgment of,
8073 and agreement to, the requirements in the Model Statement of Assurances.

8074 Subapplications that do not include a signed FEMA Statement of Assurances are incomplete and will
8075 not be considered for assistance.

8076 The Statement of Assurances describes the grants management responsibilities of local
8077 communities, including tribes or the qualifying conservation organization receiving grant assistance
8078 for acquisition projects. It is submitted with the initial subapplication and can also supplement the
8079 state/territory-local or state-tribal agreement. The Statement of Assurances includes information
8080 specific to acquisitions and must include the following:

- 8081 ▪ Declaration that the land will be maintained as open space for the conservation of natural
8082 floodplain functions, and the land uses will primarily consist of the “generally allowable uses”
8083 that are compatible with open spaces as indicated in [44 CFR part 80](#), the HMA Guide and an
8084 official deed restriction of the property.
- 8085 ▪ Declaration that the local government, tribal government or qualifying conservation
8086 organization (subrecipient) will be responsible for all maintenance costs of the property.
- 8087 ▪ Declaration that the proposed acquisition is consistent with local hazard mitigation, land use
8088 and environmental plans, as well as relevant statute, regulations and the HMA Guide.
- 8089 ▪ Declaration that adjoining property owners will be notified about the acquisition project.

8090 **B.1.3.4. Deed Restriction Language**

8091 The subapplication must include a sample of the deed restriction (not including property-specific
8092 details) that the subapplicant intends to record with each property deed. The sample must be
8093 consistent with the [FEMA Model Deed Restriction](#).

8094 If the subapplicant makes any changes to the language in the Model Deed Restriction, the
8095 subapplicant must seek approval from the FEMA Office of Chief Counsel, through their FEMA regional
8096 office, for the changes. Changes may be made for compliance with local requirements, but changes
8097 to substantive program provisions will not be approved.

8098 The subapplicant must follow the procedure described in the previous two paragraphs for open
8099 space acquisitions in CBRS units. The subapplication must include a sample of the deed restriction

8100 for review and approval by the FEMA Office of Chief Counsel, through the FEMA regional office, to
8101 ensure compliance with all deed restriction requirements specific to these areas.

8102 **B.1.3.5. Activities Description and Schedule**

8103 As part of the scope of work, all subapplications should include an activities description referencing
8104 industry standards or project plans and specifications as well as a schedule for completing the
8105 activities.

8106 Once a property is included in an HMA subapplication submitted to FEMA, no demolition work can be
8107 initiated prior to project review, approval and award. In addition, no work can be underway at the
8108 time the subapplication is submitted. However, properties where private individuals have demolished
8109 damaged structures using private assistance or other non-federal assistance prior to application for
8110 HMA are eligible for inclusion in HMA project applications if the demolition is not connected to the
8111 project. The demolition costs cannot be included in the project subapplication.

8112 **B.1.3.6. Costs**

8113 **B.1.3.6.1. Allowable Property-Related Costs**

8114 Allowable costs are costs that are necessary and reasonable for the proper and efficient
8115 performance and administration of the federal award. Allowable costs for property acquisition and
8116 structure demolition or relocation projects for open space depend on the scope of the project.

8117 Generally allowable costs are listed in [Table 19](#). Other costs will be evaluated on a case-by-case
8118 basis.

8119 A shortfall is the difference between the amount the subrecipient pays an owner for a damaged
8120 residence and the cost of a comparable replacement home in a non-hazard-prone location if the cost
8121 of the replacement home is higher. A shortfall is an allowable cost up to \$31,000 per property.³⁷⁷

³⁷⁷ To provide fair and equitable compensation, HMA has capped the shortfall amount at \$31,000, which is the threshold for replacement housing payments set by the URA ([42 U.S.C. § 4623\(a\)](#)). This amount may be updated periodically by regulation ([49 CFR § 24.401](#)).

8122
8123

Table 19: Generally Allowable Costs for Property Acquisition and Structure Demolition or Relocation

Generally Allowable Costs for Property Acquisition and Structure Demolition or Relocation
Both Structure Demolition and Relocation
<ul style="list-style-type: none"> ▪ Market value of the real property (land and structures) either at the time of sale or immediately prior to the most recent disaster or flood event, subject to applicable adjustments, provided state/local laws do not prohibit future improvements and/or require structure demolition. ▪ Removal of demolition debris and household hazardous wastes to an approved landfill (including debris from the demolition of houses, garages, driveways, sidewalks and above-grade concrete slabs). ▪ Abatement of asbestos and/or lead-based paint. ▪ Removal of septic tanks; if not removed, floors and walls must be cracked or crumbled so the tank will not hold water, and the tank must be filled with sand or other clean fill. ▪ Permitted disposal of fuel tanks that support residential use only. ▪ Removal of all structure foundation and basement walls to at least 1 foot below the finish grade of the site. ▪ Filling of basements with compacted clean fill (basement floors must have a minimum 1-foot-diameter hole in the floor to allow for drainage). ▪ Removal of only the trees, if any, that restrict the demolition work on any structure. ▪ Termination of all abandoned utilities at least 2 feet below the finish grade of the site. ▪ Capping of all wells and/or removal of associated components. ▪ Grading, seeding, leveling and site stabilization of all demolition sites. ▪ Fees for necessary appraisals, title searches, title insurance, property inspections, permit fees and surveys. ▪ Property tax liens or tax obligations can be extinguished with proceeds from property sale while performing the transfer of title. ▪ Fees associated with the title transfer, contract review and other costs associated with conducting the real estate settlement, including recordation of the deed and deed restrictions. ▪ Development of an adaptive land management strategy for the purpose of addressing long-term management of the acquired property and developing funding strategies.

Generally Allowable Costs for Property Acquisition and Structure Demolition or Relocation**Structure Demolition Only**

- Market value of the real property (land and structures) either at the time of sale or immediately prior to the most recent disaster or flood event, subject to applicable adjustments, provided state/local laws do not prohibit future improvements and/or require structure demolition.
- For land already owned by an eligible entity, compensation is for the structure and for development rights only, not for the land. This includes any entity eligible to apply for award or subaward assistance under the relevant assistance program, even if the entity is not the applicant or subapplicant for the project.
- Removal of demolition debris and household hazardous wastes to an approved landfill (including debris from the demolition of houses, garages, driveways, sidewalks and above-grade concrete slabs).
- Abatement of asbestos and/or lead-based paint.
- Removal of septic tanks; if not removed, floors and walls must be cracked or crumbled so the tank will not hold water, and the tank must be filled with sand or other clean fill.
- Permitted disposal of fuel tanks that support residential use only.
- Removal of all structure foundation and basement walls to at least 1 foot below the finish grade of the site.
- Filling of basements with compacted clean fill (basement floors must have a minimum 1-foot-diameter hole in the floor to allow for drainage).
- Removal of only the trees, if any, that restrict the demolition work on any structure.
- Termination of all abandoned utilities at least 2 feet below the finish grade of the site.
- Capping of all wells and/or removal of associated components.
- Grading, seeding, leveling and site stabilization of all demolition sites.
- Fees for necessary appraisals, title searches, title insurance, property inspections, permit fees and surveys.
- Property tax liens or tax obligations can be extinguished with proceeds from property sale while performing the transfer of title.
- Fees associated with the title transfer, contract review and other costs associated with conducting the real estate settlement, including recordation of the deed and deed restrictions.

Generally Allowable Costs for Property Acquisition and Structure Demolition or Relocation

Structure Relocation Only

- Market value of the real property (land only).
- For land already owned by an eligible entity, compensation is for the development rights. This includes any entity eligible to apply for award or subaward assistance under the relevant assistance program, even if the entity is not the applicant or subapplicant for the project.
- Removal of demolition debris and household hazardous wastes to an approved landfill (including debris from the demolition of attached appurtenances such as porches, decks, skirting, ramps, awnings, garages, driveways, sidewalks and above-grade concrete slabs).
- Abatement of asbestos and/or lead-based paint.
- Removal of septic tanks; if not removed, floors and walls must be cracked or crumbled so the tank will not hold water, and the tank must be filled with sand or other clean fill.
- Permitted disposal of fuel tanks that support residential use only.
- Removal of all structure foundation and basement walls to at least 1 foot below the finish grade of the site.
- Filling of basements with compacted clean fill (basement floors must have a minimum 1-foot-diameter hole in the floor to allow for drainage).
- Removal of only the trees, if any, that restrict the demolition work on any structure.
- Termination of all abandoned utilities at least 2 feet below the finish grade of the site.
- Capping of all wells and/or removal of associated components.
- Grading, leveling and site stabilization of all demolition sites.
- Fees for necessary appraisals, title searches, title insurance, property inspections, plan reviews, permit fees and surveys.
- Property tax liens or tax obligations can be extinguished with proceeds from property sale while performing the transfer of title.
- Fees associated with the title transfer, contract review and other costs associated with conducting the real estate settlement, including recordation of the deed and deed restrictions.
- Jacking and moving the structure to a different site.
- The reasonable cost of disassembling, moving and reassembling any attached appurtenances such as porches, decks, skirting, ramps and awnings.
- Necessary site preparations, including foundation, water, sewer and utility hookups.
- Site restoration and site stabilization of the acquired site.

8124 B.1.3.6.2. Nonallowable Costs

8125 Property-related costs that are not allowable under HMA programs include but are not limited to the
8126 following:

- 8127 ▪ Compensation for land that is already held by an eligible entity, even if the eligible entity is
8128 not the subapplicant for the project; however, compensation for development rights (e.g.,
8129 obtaining an open space easement) may be an allowable cost.

8130 ▪ Property acquisition and structural demolition projects where state and/or local laws or
 8131 ordinances create a legal condition that requires structure demolition and/or prohibits future
 8132 development of the property (e.g., a coastal setback requirement).

8133 ▪ Remediation, remediation plans, and environmental cleanup and certification of
 8134 contaminated properties; however, permitted disposal of incidental demolition, household
 8135 hazardous wastes and fuel tanks that support a residential use only may be an allowable
 8136 cost.

8137 ▪ Aesthetic improvements and landscaping, new site property acquisition, and public
 8138 infrastructure and utility development.

8139 **B.1.3.7. Budget**

8140 All subapplications should include a line-item breakdown of all anticipated costs.

8141 Subapplicants may apply for subrecipient management costs to cover administrative costs.

8142 Management costs must be included in the subapplication budget as a separate line item. More
 8143 information about the requirements for management cost requests can be found in [Part 13](#).

8144 The final Mitigation Offer to a property owner is based on the value assigned to a property
 8145 (“purchase offer”) and applicable additions and deductions. Deductions to the purchase offer may
 8146 include duplication of benefits deductions, and additions may include any supplemental housing or
 8147 insurance incentive payments. The subrecipient must ensure all property owners are treated fairly
 8148 and are offered an equitable package of benefits. The subrecipient (using a Statement of Voluntary
 8149 Participation) must inform each property owner in writing the market value (pre-event or current) of
 8150 the property and the method used to determine the final Mitigation Offer.

8151 If several entities or programs are acquiring property in the same area, property owners may find it
 8152 confusing if different offers are made to area owners at different times. To avoid any negotiation
 8153 difficulties or confusion, FEMA recommends the subrecipient coordinate the release of property
 8154 valuation information and purchase offers to property owners for the various programs. The
 8155 subrecipient may wish to set a time limit with the property owner for the validity of a purchase offer.
 8156 The subrecipient must provide an appeal or reconsideration process for property owners who dispute
 8157 the amount of the purchase offer property valuation.

8158 **B.1.3.7.1. Purchase Offer: Value of the Property**

8159 For each property identified for acquisition, the subrecipient shall establish and document a property
 8160 value based on market value, which is defined as:

8161 The amount in cash, or on terms reasonably equivalent to cash, for which in all probability
 8162 the property would have sold on the effective date of the valuation, after a reasonable
 8163 exposure time on the open competitive market, from a willing and reasonably
 8164 knowledgeable seller to a willing and reasonably knowledgeable buyer, with neither acting

8165 under any compulsion to buy or sell, giving due consideration to all available economic uses
 8166 of the property at the time of the valuation.

8167 The current market value reflects the property value at the time of the final Mitigation Offer. Pre-
 8168 event market value is defined as the market value of the property immediately before the relevant
 8169 event that affected the property. For HMGP and HMGP Post Fire, the relevant event for assistance is
 8170 the major disaster under which assistance is available. For BRIC, the pre-event market value is the
 8171 value before the most recent major disaster declaration; however, if the project is occurring
 8172 separately from or more than 12 months after a disaster event, the current market value may be
 8173 more appropriate. For FMA, the pre-event market value is defined as the property’s value
 8174 immediately before the most recent flood event resulting in an NFIP claim of at least \$5,000.

8175 The benefit of the pre-event market value is available only to owners who owned the property during
 8176 the event and are nationals of the United States or qualified aliens.³⁷⁸ If the current property owner
 8177 purchased or took possession of the disaster-damaged property after the major relevant event or is
 8178 not a national of the United States or qualified alien, the subrecipient may not offer the owner more
 8179 than the current market value.³⁷⁹

8180 The relevant event may vary under the HMA programs, but the pre-event market value or current
 8181 market value may be used at the recipient’s discretion. The recipient should coordinate with the
 8182 subrecipient to determine whether the valuation should be based on the pre-event market value or
 8183 current market value. The current market value may be the most efficient method if no damage has
 8184 occurred to the property or if a reasonable amount of time has elapsed since the event.

8185 FEMA generally does not include subsurface mineral valuations in the current market value.
 8186 However, there is no legal or regulatory requirement to exclude those values. Costs associated with
 8187 surface or subsurface land appraisal are considered part of the overall cost-effectiveness evaluation
 8188 of any acquisition project.

8189 Typically, property acquisition and structure demolition or relocation projects require the valuation of
 8190 the property (land and structures as a whole). When an eligible entity already owns the property and
 8191 wants to deed-restrict it, valuation is for the structure and development rights instead of for the land.
 8192 Relocation projects require the valuation of land only.

8193 **B.1.3.7.1.1. VALUATION METHODOLOGY**

8194 The following appraisal methodology must be used to determine property value:

- 8195 ▪ The appraisal must be conducted by an appraiser in accordance with The Appraisal
 8196 Foundation’s [Uniform Standards of Professional Appraisal Practice](#).

³⁷⁸ [8 U.S.C. § 1101\(a\)\(22\)](#), [8 U.S.C. § 1641\(b\)](#)

³⁷⁹ [44 CFR § 80.17\(c\)\(3\)](#)

- 8197 ▪ The appraiser must comply with relevant state laws and requirements and have the
8198 appropriate certification, qualifications and competencies based on the type of property
8199 being appraised.

- 8200 ▪ The subrecipient must coordinate with the recipient to determine the assumptions that will
8201 be used in the appraisal (i.e., current or pre-event market value), and the assumptions must
8202 be applied consistently throughout the project area for all properties to be acquired.

- 8203 ▪ When determining the value for many structures, the subrecipient may conduct appraisals to
8204 establish a statistical sampling of property values and develop an adjustment factor to apply
8205 to tax-assessed values so that they reasonably reflect each property’s market value.

- 8206 Potential deductions from and additions to the purchase offer must also be considered.

8207 **B.1.3.7.1.2. PURCHASE OFFER AND NATIONALITY**

8208 Before the property owner can receive a pre-event value for the property, the subrecipient must
8209 provide certification obtained from the property owner that the property owner is a national of the
8210 United States or a qualified alien. For property owners who are not nationals of the United States or
8211 qualified aliens, or who refuse to provide certification, the subrecipient will offer no more than the
8212 appraised current market value for the property.

8213 A property owner who is not a national of the United States or a qualified alien is not eligible for a
8214 pre-event market value determination of property value. The property value must be based on the
8215 current market value.³⁸⁰

8216 Prior to the award or final approval, subrecipients will ask all property acquisition and structure
8217 demolition or relocation project participants (property owner(s)) to certify they are a national of the
8218 United States or a qualified alien. Subrecipients will offer participants who refuse to provide such
8219 certification, or who are not national of the United States or qualified aliens, no more than the
8220 appraised current market value for their property. Participants who refuse to certify or are not
8221 national of the United States or qualified aliens may not receive supplemental housing payments.

³⁸⁰ “National of the U.S.” is defined in [8 U.S.C. § 1101\(a\)](#) as (A) a citizen of the United States or (B) a person who is not a citizen but who owes permanent allegiance to the United States. “Qualified alien” is defined in [8 U.S.C. § 1641](#) as: [A]n alien who, at the time the alien applies for, receives, or attempts to receive a Federal public benefit, is – (1) an alien who is lawfully admitted for permanent residence under the Immigration and Nationality Act (INA) [\[8 U.S.C. § 1101 et seq.\]](#), (2) an alien who is granted asylum under INA section 208 [\[8 U.S.C. § 1158\]](#), (3) a refugee who is admitted to the United States under INA section 207t [\[8 U.S.C. § 1157\]](#), (4) an alien who is paroled into the United States INA section 212(d)(5) [\[8 U.S.C. § 1182 \(d\)\(5\)\]](#) for a period of at least 1 year, (5) an alien whose deportation is being withheld under INA section 243(h) [\[8 U.S.C. part 12538 U.S.C. § 1253\]](#) (as in effect immediately before the effective date of section 307 of division C of Public Law 104-208) or INA section 241(b)(3)t [\[8 U.S.C. § 1231\(b\)\(3\)\]](#) (as amended by section 305(a) of division C of Public Law 104-208), (6) an alien who is granted conditional entry pursuant to INA section 203(a)(7) [\[8 U.S.C. § 1153 \(a\)\(7\)\]](#) as in effect prior to April 1, 1980; or (7) an alien who is a Cuban and/or Haitian entrant (as defined in [section 501\(e\)](#) of the Refugee Education Assistance Act of 1980).

8222 For property owners who are seeking pre-event value, subrecipients may use FEMA Form 009-0-3,
 8223 “Declaration and Release,” as certification of the nationality of participating property owner(s). At the
 8224 time of certification, the subrecipient will ask the property owner to show a form of identification (any
 8225 government-issued identification displaying the signer’s name). If the property owner has applied for
 8226 FEMA disaster assistance, Form 009-0-3 will already be on file at FEMA, and the subrecipient will
 8227 instead request verification from FEMA through the recipient that a certification is on file.

8228 **B.1.3.7.1.3. DEDUCTIONS FROM THE PURCHASE OFFER**

8229 The recipient, subrecipient and property owner must identify and report any potential duplication of
 8230 benefits. FEMA may assist with this process if needed, but it is the responsibility of the recipient and
 8231 subrecipient to validate all duplication of benefits. See FEMA’s [“Duplication of Benefits”](#) webpage for
 8232 more in-depth information. FEMA deducts benefits from other sources from the purchase offer.
 8233 Repair assistance that has been used for its intended purpose is generally not deducted if
 8234 documentation of the use is provided.

8235 Examples of when duplication of benefits may occur in a property acquisition and structure
 8236 demolition or relocation project are as follows:

- 8237 ▪ The subrecipient offers the full pre-event market value to the property owner, but the
 8238 property owner cannot provide documentation to demonstrate that assistance such as
 8239 insurance, loans, repair grants, compensation in compliance with a court order, or other such
 8240 assistance has been used for its intended purpose. This is because payment of the full pre-
 8241 event market value compensates the owner for the loss of value that has occurred.
- 8242 ▪ The subrecipient offers the full pre-event market value to the property owner, but legal claims
 8243 are appropriate or legal obligations arise in connection to the property that may provide a
 8244 benefit to the property owner. The parties involved in pending legal disputes must take
 8245 reasonable steps to recover benefits available to them.
- 8246 ▪ Relocated tenants receive relocation assistance and rental assistance but have received
 8247 payments for the same purpose as part of the disaster assistance provided by any agency or
 8248 payments from any other source. Any acquisition-related assistance provided to tenants
 8249 must be reduced accordingly. However, tenant-related duplication of benefits deductions do
 8250 not affect the amounts available to the property owner.

8251 For property valuations based on the pre-event market value, the following procedures can help
 8252 prevent mitigation assistance from duplicating benefits available from other sources:

- 8253 ▪ The subrecipient establishes the purchase offer property value as of a certain date.
- 8254 ▪ The subrecipient provides the recipient with a list of property owners participating in the
 8255 property acquisition and structure demolition or relocation project as well as a list of tenants
 8256 who may be affected by the acquisition.

- 8257 ▪ The recipient and FEMA inform the subrecipient of the amount of repair or replacement
8258 assistance available to each property owner and rental or relocation assistance available to
8259 tenants. FEMA provides NFIP coverage information to the recipient and subrecipient,
8260 including the amount paid on a claim and the amount of coverage available.

- 8261 ▪ The subrecipient coordinates with property owners who must disclose all assistance received
8262 for the same purpose, as described above, including repair or replacement assistance
8263 received, all insurance benefits available to them under an existing policy (whether they
8264 submitted a claim), and any potential recovery of assistance based on litigation or other legal
8265 obligations. The property owner must take reasonable steps to recover such amounts. The
8266 subrecipient must coordinate with tenants who must disclose any amounts received from
8267 rental or relocation assistance.

- 8268 ▪ When a property owner receives a Small Business Administration (SBA) loan for repairs, the
8269 property owner must provide proof that loan funds were spent as intended so that they are
8270 not deducted as a duplication of benefits. In accordance with SBA requirements, loans must
8271 be repaid at the acquisition closing or rolled over to the new property. When a property owner
8272 receives SBA loan funds to complete a mitigation activity, HMA funds cannot duplicate the
8273 purpose covered by the loan, nor can they be used in the form of a grant for loan “swap” or
8274 to pay down an SBA loan.

- 8275 ▪ The subrecipient identifies any other potential sources of benefits to the subrecipient,
8276 property owner or tenant.

- 8277 ▪ The subrecipient must reduce the purchase offer by the amount of any duplication of
8278 benefits. Deductions are not taken for any amounts the owner can verify with receipts that
8279 were expended on repairs or cleanup. Subrecipients may not credit property owners for their
8280 own labor hours for repair work.

- 8281 ▪ For insurance payments made for which the purpose is unspecified, property owners may
8282 submit an affidavit stating that the unspecified settlement will be used for personal property
8283 replacement or documentation from the insurance company specifying the type of losses
8284 covered by the previously unspecified settlement. If the property owner submits an affidavit,
8285 upon receipt of the affidavit, the recipient and subrecipient will treat the payment as a
8286 personal property settlement that is not subject to a duplication of benefits deduction.

8287 **B.1.3.7.1.4. ADDITIONS TO THE PURCHASE OFFER**

8288 If the purchase offer for a property is less than the amount the property owner must pay to purchase
8289 a comparable replacement dwelling in a non-hazard-prone site in the same community, the recipient
8290 and subrecipient may choose to make available to the property owner a supplemental payment of up
8291 to \$31,000 that would be applied to the difference. Subrecipients should consider the cost of
8292 relocating to a permanent residence that is of comparable value and is functionally equivalent.

8293 For the property owner to receive a supplemental payment, the recipient and subrecipient must
 8294 demonstrate that the following circumstances exist:

- 8295 ▪ Assistance cannot be secured from other more appropriate sources, such as housing
 8296 agencies or voluntary groups.
- 8297 ▪ Decent, safe and sanitary housing of comparable size and capacity is not available in non-
 8298 hazard-prone sites within the community at the anticipated acquisition price of the property
 8299 being vacated.
- 8300 ▪ The project otherwise would have a disproportionately high adverse effect on low-income or
 8301 minority populations because project participants in these populations would not be able to
 8302 secure comparable decent, safe and sanitary housing.³⁸¹
- 8303 ▪ Participants have certified that they are nationals of the United States or qualified aliens.

8304 The recipient has the option of allowing subrecipients to provide a credit to property owners who
 8305 have flood insurance. The subrecipient provides an incentive payment that is equal to up to five
 8306 years of flood insurance premiums actually paid by the current property owner for an NFIP policy for
 8307 structure coverage. This is applicable to all programs.

8308 **B.1.3.7.2. Tenants**

8309 Although the property owner must voluntarily agree to participate in an open space project,
 8310 participation is not voluntary for residential and business tenants and owners of mobile homes who
 8311 rent homepads (homepad tenants) and who must relocate as a result of the acquisition of their
 8312 housing. Therefore, these tenants are entitled to assistance as required by the URA, as amended.³⁸²
 8313 Property owners participating in FEMA-assisted property acquisition and structure demolition or
 8314 relocation projects are not entitled to relocation benefits because the voluntary program meets URA
 8315 exceptions.

8316 URA regulations define “tenant” as a person who has the temporary use and occupancy of real
 8317 property that is owned by another. URA relocation benefits to displaced tenants include moving
 8318 expenses, replacement housing rental payments and relocation assistance advisory services.
 8319 Displaced tenants include owners of manufactured homes who lease a pad site. The amount of
 8320 assistance the subrecipient must pay the tenant is provided in [49 CFR part 24, subpart E](#). An eligible
 8321 displaced tenant is entitled to:

- 8322 ▪ Reasonable out-of-pocket (or fixed schedule) moving expenses.

³⁸¹ [49 CFR § 24.2\(a\)\(8\)](#)

³⁸² [42 U.S.C. § 4601 et seq.](#)

8323 ▪ Compensation for a reasonable increase in rent and utility costs incurred in connection with
8324 the relocation in certain circumstances.

8325 ▪ Relocation assistance payments for tenants are intended to ensure these individuals can
8326 relocate to decent, safe and sanitary comparable replacement dwellings outside the
8327 floodplain or hazard area.

8328 If a tenant chooses to purchase a replacement dwelling, the tenant may apply the amount of rental
8329 assistance they would be entitled to toward the down payment. Similarly, if a mobile homeowner who
8330 rents a homepad chooses to purchase a replacement pad or lot, the mobile homeowner may apply
8331 the amount of rental assistance they would be entitled to toward the down payment.

8332 An alien who is not lawfully present in the U.S. is not eligible to receive URA relocation benefits or
8333 relocation advisory services. FEMA may approve exceptions if this results in unusual hardship to the
8334 alien’s spouse, parent or child who is a U.S. citizen, or an alien admitted for permanent residence.
8335 Subrecipients will ask tenants who are potential recipients of URA assistance to certify that they are
8336 U.S. citizens or are lawfully present in the U.S. Subrecipients will not provide URA assistance to
8337 participants who are not or who refuse to certify that they are U.S. citizens or lawfully present.

8338 Additional instructions for implementing URA requirements can be found in [49 CFR part 24](#).
8339 Subrecipients must coordinate closely with the recipient and FEMA when implementing URA
8340 requirements. The state Department of Transportation (DOT) is often a good resource in determining
8341 how to calculate the appropriate URA payment because the Federal Highway Administration is the
8342 lead federal agency for the URA.

8343 **B.1.3.7.2.1. RENTAL INCREASE PAYMENT**

8344 A tenant displaced from a dwelling as a result of a federally-assisted property acquisition and
8345 structure demolition or relocation project is entitled to a rental increase payment if:

8346 ▪ The tenant rents or purchases and occupies a decent, safe and sanitary replacement
8347 dwelling within one year after the date the tenant moves out of the original dwelling.

8348 ▪ The tenant occupied the displacement dwelling for the 90 calendar days preceding the
8349 initiation of negotiations for acquisition of the property.

8350 The initiation of negotiations is defined as the first formal indication that the subrecipient wants to
8351 purchase a particular property. Any tenant who occupied the dwelling before a disaster event is
8352 usually eligible. The exception is if the project negotiations are unrelated to the disaster event or
8353 begin so long after the event that it is no longer a relevant factor. If the dwelling is reinhabited after
8354 the event, former tenants are generally not eligible. A signed lease is preferable for proving tenancy,
8355 but other documentation such as utility bills may be used to prove tenancy if a signed lease is not
8356 available because of the disaster event.

8357 Compensation for a rent increase is 42 times the amount that is obtained by subtracting the “base
 8358 monthly rent” for the displacement dwelling from the monthly rent and average monthly cost of
 8359 utilities for a comparable replacement dwelling, or the decent, safe and sanitary replacement
 8360 dwelling now occupied by the displaced person.

8361 The “base monthly rent” for the displacement dwelling is the lesser of the average monthly cost for
 8362 utilities plus the rent at the displacement dwelling as determined by FEMA, or 30 percent of the
 8363 tenant’s average gross household income. The rental increase payment may not exceed a total of
 8364 \$7,200.³⁸³

8365 Subrecipients may exceed the limits identified in the URA in extraordinary circumstances if necessary
 8366 to ensure a displaced tenant will be able to obtain and retain a comparable unit that is decent, safe
 8367 and sanitary (as defined at [49 CFR § 24.2\(a\)\(8\)](#)) outside a high-hazard area. A rental assistance
 8368 payment may, at the subrecipient’s discretion, be disbursed in a lump sum or installments. If any
 8369 U.S. Department of Housing and Urban Development programs are providing partial assistance for
 8370 the project, the subrecipient should verify the program requirements to ensure proper coordination
 8371 with mitigation program requirements.

8372 **B.1.3.7.2.2. RENTAL ASSISTANCE FOR HOMEPAD TENANTS**

8373 Mobile homeowners who lease a homepad and who must relocate to a new homepad because of the
 8374 acquisition of their pre-disaster homepad are entitled to URA relocation benefits and/or replacement
 8375 housing payments. Payments to mobile homeowners may not duplicate insurance payments or
 8376 payments made by other federal, state, local or voluntary agencies. Complex situations involving
 8377 FEMA mobile homes that have been donated to a state or local government and then sold to the
 8378 mobile homeowner should be directed to the appropriate FEMA regional office for eligibility
 8379 determination and calculation of benefits.

8380 Displaced mobile homeowners who rent their homepads are entitled to assistance as described
 8381 below. In some cases, the combination of the two types of URA assistance may exceed URA’s
 8382 statutory maximum replacement housing differential of \$31,000.

8383 The displaced mobile homeowner/homepad tenant is entitled to compensation for rental and utility
 8384 increases resulting from renting a comparable homepad and moving expenses as described in this
 8385 section. Compensation for homepad rent increase is 42 times the amount obtained by subtracting
 8386 the “base monthly rent” for the displacement homepad from the monthly rent and the average
 8387 monthly cost of utilities for a comparable replacement homepad. The rental increase payment may
 8388 not exceed a total of \$7,200.

8389 Displaced mobile homeowners may also be entitled to replacement housing assistance. For URA
 8390 purposes, the mobile homeowner is considered to be involuntarily displaced from the residence

³⁸³ The amount of the rental increase payment is set forth by the Uniform Relocation Act ([42 U.S.C. § 4624\(a\)](#)) and may be updated periodically by regulation ([49 CFR § 24.402](#)).

8391 because of the homepad owner selling the property. In addition, if the mobile home is also
 8392 purchased, the displaced mobile homeowner is entitled to replacement housing assistance to
 8393 compensate for their need to find replacement housing. Compensation for mobile home
 8394 replacement is equivalent to the amount obtained by subtracting the value of the purchased mobile
 8395 home from the cost of a new replacement mobile home.

8396 In some cases, it may not be possible to secure a comparably located site for a replaced/displaced
 8397 mobile home; thus, the site on which the home is ultimately placed is called “last resort housing.”
 8398 The cost to find and/or obtain such a site may exceed the statutory maximum differential
 8399 replacement housing payment of \$31,000. Last resort housing cases can result when the
 8400 subapplicant has not adequately planned for the relocation of mobile homepad tenants. If a
 8401 comparable location for a replacement mobile home cannot be found, the homepad tenant may be
 8402 eligible for replacement housing payments up to the cost of a traditionally constructed home that is
 8403 comparably located.

8404 **B.1.3.7.2.3. REQUIREMENTS FOR APPLICATIONS INVOLVING MOBILE HOMEOWNERS**

8405 Subapplicants seeking assistance for mobile home park acquisitions must demonstrate capacity to
 8406 administer the subaward within the project budget. To demonstrate capacity, the subapplication
 8407 should include:

- 8408 ▪ An estimate of the number of mobile homes that will be involuntarily displaced.
- 8409 ▪ Identification of in-house URA expertise or an estimate of the cost of obtaining URA expertise
 8410 shown as a line item in the project budget.
- 8411 ▪ A preliminary relocation analysis discussing whether an adequate stock of potential
 8412 replacement sites and/or dwellings is available.

8413 **B.1.3.7.2.4. TENANT BUSINESSES**

8414 Tenant businesses that are involuntarily relocated because of a FEMA-assisted property acquisition
 8415 and structure demolition or relocation project are entitled to URA benefits. Assistance provided to a
 8416 tenant business cannot duplicate payments from insurance or any other source. Thus, SBA loans
 8417 and other types of financial assistance received after the disaster must be subtracted from benefits
 8418 received under the URA. The recipient and subrecipient should seek assistance from the appropriate
 8419 FEMA regional office in determining benefits for tenant businesses. The state DOT can be a good
 8420 resource for determining benefits for tenants because the Federal Highway Administration oversees
 8421 the applicability of the URA.

8422 **B.1.3.8. Consultation Regarding Other Ongoing Federal Activities**

8423 Because properties acquired under HMA programs must be permanently converted to open space
 8424 and will be unavailable for future development, subapplicants must coordinate with the appropriate

8425 federal agency or agencies in accordance with [44 CFR § 80.13](#) to ensure other federal actions that
8426 would affect the parcels under consideration for acquisition for open space are not anticipated.

8427 If other federal activities are planned in the proposed project area, the subapplicant will need to
8428 forgo an open space acquisition project and pursue other mitigation project options. If the
8429 subapplicant decides to proceed with the acquisition project, the subapplicant must include
8430 documentation of their coordination under this section in the subapplication.

8431 Consultation with state DOTs, the U.S. Army Corps of Engineers (USACE) and other federal agencies
8432 is discussed below.

8433 **B.1.3.8.1. U.S. Army Corps of Engineers**

8434 The allowed uses of open space that have been created as a result of an acquisition project
8435 generally do not include levee systems for flood risk management purposes, and subapplicants will
8436 be required to reject consideration of such use if they accept FEMA assistance to convert a property
8437 to permanent open space.³⁸⁴ The subapplicant must demonstrate in the subapplication that they
8438 have consulted with USACE regarding each subject property's potential future use for the
8439 construction of a levee system.³⁸⁵ FEMA will not award assistance for any property without this
8440 documentation. This restriction does not generally apply to structures for ecosystem preservation,
8441 restoration or enhancement.

8442 If the initial consultation with USACE indicates that there is a potential consideration for a levee in
8443 the area, the subapplicant must undertake an expanded consultation with the applicant, FEMA and
8444 USACE. FEMA can help assist in this expanded coordination. The consultation will involve the
8445 identification and full consideration of future potential land-use conflicts to enable an informed
8446 decision regarding how best to proceed.

8447 If, after the consultation, the decision is to pursue a FEMA-assisted property acquisition and
8448 structure demolition or relocation project, the subapplication must include an assurance, resolution
8449 or equivalent document adopted by the local governing body that indicates the following:

- 8450 ▪ In consultation with USACE, the local government has identified and considered the future
8451 potential use of acquired land for the construction of levees and has chosen to proceed with
8452 the acquisition of permanent open space.

- 8453 ▪ The local government understands that land acquired for open space purposes under the
8454 relevant mitigation program will be restricted in perpetuity to open space uses and will be
8455 unavailable for any use that is incompatible with the open space and floodplain purposes

³⁸⁴ In the rare circumstances where the Administrator has determined competing federal interests were unavoidable and has analyzed floodplain impacts for compliance with [44 CFR § 60.3](#) or higher standards, the Administrator may find only USACE projects recognized by FEMA in 2000 and 2003 and improvements to pre-existing federal-aid transportation systems to be allowable uses. ([44 CFR § 80.19\(a\)\(ii\)](#)).

³⁸⁵ [44 CFR § 80.13\(b\)](#).

8456 designated for the property. These incompatible uses include the construction of flood
8457 damage reduction levees, paved roads, and other development.

8458 **B.1.3.8.2. Departments of Transportation**

8459 The subapplicant must demonstrate in the subapplication that they have coordinated with the
8460 relevant state DOT to ensure future plans do not contain any improvements or enhancements to
8461 federal aid systems or other state transportation projects that would affect the proposed project area
8462 under consideration.³⁸⁶ The construction of such transportation improvements, enhancements or
8463 projects on open space land is incompatible with open space uses and is not allowed.

8464 **B.1.3.8.3. Other Federal Agencies**

8465 The applicant and subapplicant must demonstrate in the application and subapplication,
8466 respectively, that they have consulted with other federal agencies, as appropriate, regarding other
8467 program requirements and/or activities and have identified the relationship between the
8468 requirements and activities to FEMA mitigation activities and assistance. Other federal agency
8469 requirements may apply to mitigation activities if other agency assistance is used for activities
8470 related to the project in the community or for matching the mitigation assistance, such as
8471 Community Development Block Grant assistance or Community Development Block Grant-Disaster
8472 Recovery assistance.

8473 Other federal agency assistance may be used to contribute to the non-federal share of a FEMA-
8474 assisted mitigation project, if both programs' requirements are met. See [Part 4](#) for more information
8475 on federal assistance that is allowed to be used as a non-federal cost share. The applicant is
8476 responsible for coordinating with the programs that are available in the state. The coordination
8477 should include local program representatives and approaches and schedules. The objective should
8478 be to make the process as simple and consistent as possible for subapplicants and property owners.

8479 **B.1.3.8.4. Consultation Regarding Properties in the Coastal Barrier Resources System**

8480 For any proposed action that involves the acquisition of a structure for open space purposes that is
8481 within or attached to the CBRS, the FEMA regional administrator, as required by section 6 of the
8482 CBRA, consults with the designated representative of the U.S. Department of the Interior at the
8483 regional level before approving the action.

8484 The request for consultation is in the form of a memorandum to the Interior Department
8485 representative that contains the following:

- 8486
- Identification of the CBRS unit.

³⁸⁶ [44 CFR § 80.13\(b\)](#).

8487 ▪ Description of the structure and the property to be acquired and demolished or relocated,
 8488 including the identification of the structure as an exception under section 6 of the CBRA³⁸⁷
 8489 and full justification of its status as an exception.

8490 ▪ Amount of proposed federal assistance.

8491 ▪ Any additional required mitigation measures.

8492 ▪ A determination of the action’s consistency with the purposes of the CBRA, in accordance
 8493 with [44 CFR § 206.349](#).

8494 Pursuant to FEMA’s understanding with the Interior Department, the Interior Department
 8495 representative provides technical information, an opinion on whether the proposed action meets the
 8496 criteria for the CBRA exception, and an opinion on whether the action is consistent with the purposes
 8497 of the CBRA if consistency is required. The Interior Department is expected to respond in a timely
 8498 manner from the date of the FEMA request for consultation. If a timely written response is not
 8499 received , the FEMA regional administrator will contact the Interior Department representative to
 8500 determine whether the consultation request was received.

8501 When the regional Interior Department representative’s opinion is that the proposed action should
 8502 not be taken and the issue cannot be resolved at the regional level, the FEMA regional administrator
 8503 submits the issue to the Director of the Office of Environmental Planning and Historic Preservation
 8504 and the Federal Insurance and Mitigation Administration for review. Consultation is accomplished at
 8505 FEMA headquarters with the Interior Department consultation officer, the Office of Environmental
 8506 Planning and Historic Preservation, and the Federal Insurance and Mitigation Administration in
 8507 coordination with the FEMA Office of Chief Counsel. The Director of the Office of Environmental
 8508 Planning and Historic Preservation and the Federal Insurance and Mitigation Administration then
 8509 approves or does not approve the proposed action.

8510 **B.1.4. PROPERTY ACQUISITION: SUBAWARD IMPLEMENTATION**

8511 **B.1.4.1. Notification Process Required Under the Disaster Recovery Reform Act**

8512 Section 1231 of the Disaster Recovery Reform Act (DRRA)³⁸⁸ specifies that within 60 calendar days
 8513 of the award, the recipient’s hazard mitigation officer or designated representative provides
 8514 notification to each affected unit of local government with detailed information on the subrecipient’s
 8515 approved acquisition projects. The notification must include the following:

8516 ▪ The location and address of the acquisition property.

³⁸⁷ [16 U.S.C. § 3505](#)

³⁸⁸ [Public Law 115-254](#) (October 5, 2018)

- 8517 ▪ A description of the acquisition project (i.e., latitude/longitude coordinates to the nearest
8518 sixth decimal place, a legal description and other identifying characteristics).
- 8519 ▪ A copy of the model deed restrictions for acquired properties.
- 8520 ▪ The state/territory-local or state-tribal grant assistance agreement.

8521 **B.1.4.2. Relocation and Removal of Existing Buildings**

8522 Existing buildings that are part of an open space acquisition and demolition or relocation project
8523 must be removed and disposed of in accordance with applicable laws within 90 calendar days of
8524 closing and settlement of the property acquisition transaction. The recipient and subrecipient are
8525 responsible for the removal and disposal.

8526 Even if numerous properties are purchased on different dates, the recipient and subrecipient are still
8527 responsible for structure disposal or removal within 90 calendar days of settlement for each
8528 property. The FEMA regional administrator may grant an exception for multiple properties in a single
8529 project when the properties are individually identified, and the need for an exception is justified in
8530 accordance with the regulations.³⁸⁹ The recipient must submit a written request to the regional
8531 administrator stating the justification for additional time to demolish any structure removal that will
8532 extend beyond the 90-day time limit, including a specific date for removal.

8533 All relocated structures in open space acquisition and relocation projects must be placed on a site
8534 outside (1) an SFHA, (2) any regulatory erosion zones at a distance at least 60 times the average
8535 annual erosion rate measured from an appropriate “erosion reference feature,” and (3) any other
8536 identified hazard areas. The owner is responsible for ensuring the building is brought into
8537 compliance with all applicable laws and regulations.

8538 Existing buildings that are part of an open space acquisition and demolition project must be
8539 demolished (resulting in the permanent destruction of each structure) and disposed of in
8540 accordance with applicable laws.

8541 After a disaster, the demolition and debris removal of acquired structures may be eligible for
8542 reimbursement under the FEMA Public Assistance (PA) program if the structures represent a health
8543 and safety hazard as a result of the disaster. States/recipients and subrecipients should coordinate
8544 with the appropriate FEMA regional office to determine whether these costs are eligible under the PA
8545 program. If the demolition costs do not qualify for PA program assistance, they are eligible project
8546 costs under the relevant mitigation program if submitted as part of a project subapplication. If any
8547 parts of the structure are sold for salvage value, the total cost of the project will be reduced by the
8548 salvage value before cost shares are calculated.

³⁸⁹ [44 CFR § 80.17\(d\)](#)

8549 **B.1.5. PROPERTY ACQUISITION: CLOSEOUT**

8550 Recipient and subrecipients must closeout projects in a timely manner consistent with [Part 9](#).

8551 At the completion of the award/subaward activity, FEMA and the recipient shall verify that all
8552 required subaward activities have been accomplished in accordance with all program guidance and
8553 proper grants management practices and [44 CFR § 80.21](#), that all properties identified in the
8554 subapplication have been acquired, and that the Model Deed Restriction language was recorded
8555 with each corresponding deed.

8556 The subrecipient shall provide to FEMA, through the recipient, the following property information:

- 8557 ▪ Photograph(s) of the property site after project was completed.
- 8558 ▪ A copy of the recorded deed that includes [FEMA Model Deed Restriction](#) language for each
8559 property.
- 8560 ▪ Latitude and longitude of each property given to the nearest sixth decimal place.
- 8561 ▪ A signed Statement of Voluntary Participation from the owner(s) of each property identified in
8562 the subaward scope of work.
- 8563 ▪ Description of how pre-event market value was determined, if applicable.
- 8564 ▪ Documentation of duplication of benefits review.
- 8565 ▪ Date structure was removed from property (this should be 90 calendar days from date of
8566 settlement).
- 8567 ▪ Update of the property site information in the respective HMA electronic system database for
8568 each structure, noting if the property was mitigated, the closing date, and the amount paid to
8569 the homeowner(s).
- 8570 ▪ For relocation projects, a certificate of occupancy from the local government agency or
8571 building department for each relocated structure to certify that the structure is code
8572 compliant.
- 8573 ▪ For FMA only, documentation that the property owner maintained flood insurance until the
8574 property was sold.

8575 **B.1.6. PROPERTY ACQUISITION: POST CLOSEOUT DISPOSITION AND REPORTING**
8576 **REQUIREMENTS**

8577 **B.1.6.1. Program Reporting and Monitoring**

8578 The recipient will work with subrecipients to ensure the property is maintained in accordance with
8579 land-use restrictions. The recipient and subrecipients should jointly monitor and inspect acquired
8580 properties every three years, based on the recipient’s three-year reporting cycle, to ensure the
8581 inspected parcels continue to be used for allowable open space purposes. Subrecipients cannot
8582 include long-term monitoring costs in their project application. Costs outside the period of
8583 performance are not eligible.

8584 Every three years, the subrecipient, the recipient and FEMA must coordinate to ensure the
8585 subrecipient submits documentation to the appropriate FEMA regional administrator certifying that
8586 the subrecipient has inspected the subject property within the month preceding the report and that
8587 the property continues to be maintained consistent with the provisions of the award/subaward. If the
8588 property subsequently transfers to an allowable transferee, the subrecipient, the recipient and FEMA
8589 will coordinate with that entity to submit the information.

8590 The recipient, subrecipient and FEMA have the right to enter the parcel, with notice, to inspect the
8591 property to ensure compliance with land-use restrictions. Subrecipients may identify the open space
8592 nature of the property on local tax maps to assist with monitoring.

8593 **B.1.6.2. Postacquisition Land Use**

8594 Once the land is acquired and designated as open space, FEMA must review the subrecipient’s
8595 proposed change in land use, unless the changed use is grading and seeding of the original building
8596 site.

8597 Uses that require review include but are not limited to:

- 8598 ▪ Establishing an encumbrance or easement (such as a utility easement or mineral rights
8599 lease).³⁹⁰
- 8600 ▪ Building any kind of structure or other development on the site (e.g., grading outside the
8601 building footprint, dredging, mining, filling, paving, excavation or removal of vegetation, and
8602 planting).^{391 392}
- 8603 ▪ Storing equipment and materials.

³⁹⁰ [44 CFR § 80.19\(b\)\(2\)](#)

³⁹¹ [44 CFR § 80.19\(a\)\(2\)](#)

³⁹² [44 CFR § 80.19\(a\)\(2\)\(iii\)](#), [44 CFR § 60.3\(d\)\(3\)](#)

8604 As part of the subrecipient’s proposed change in land use, the subrecipient must submit a written
8605 request to the recipient for review. The recipient must review the request to verify the land use
8606 follows all open space requirements and should coordinate with the subrecipient to ensure all
8607 necessary information is provided. The recipient must forward the request to FEMA for review
8608 together with a recommendation whether the recipient considers the land use is allowable. FEMA will
8609 review the information submitted and verify program requirements have been met. FEMA will review
8610 the request and notify the recipient of their determination.

8611 **B.1.6.3. Nonallowable Land Uses of Open Space**

8612 Land uses that are generally not allowable include:

- 8613 ▪ Surface activities associated with fracking, which include but are not limited to the well bore
8614 mouth, well head, well pad, drilling site, storage facility, transport equipment and wastewater
8615 disposal such as injection wells, evaporation ponds and discharge into surface water.
- 8616 ▪ Walled buildings or manufactured homes, except public restrooms (reuse of pre-existing
8617 structures is not allowed unless all walls are removed).
- 8618 ▪ Installation of septic systems or reuse of pre-existing septic systems except to service a
8619 permissible restroom.
- 8620 ▪ Fences and all other obstructions in the floodway; fences outside the floodway must be
8621 designed to minimize trapping debris.
- 8622 ▪ Flood risk reduction structures, such as levees, dikes or floodwalls.
- 8623 ▪ Paved roads, highways, bridges and paved parking areas that include asphalt, concrete, oil-
8624 treated soil or other material that inhibits floodplain functions.
- 8625 ▪ Storage of inventory supporting a commercial operation or governmental facility, including
8626 wheeled vehicles or movable equipment.
- 8627 ▪ Cemeteries, landfills, storage of any hazardous or toxic materials, or other uses that are
8628 considered environmentally contaminating, dangerous or a safety hazard.
- 8629 ▪ Actions that pose health, safety or environmental risk in the floodplain.
- 8630 ▪ Aboveground or underground pumping stations or storage tanks.
- 8631 ▪ Placement of fill materials except where necessary to avoid affecting on-site archaeological
8632 resources.
- 8633 ▪ Other uses that obstruct the natural and beneficial use of the floodplain.
- 8634 ▪ Long-term human habitation.

8635 **B.1.6.3.1. Nonallowable Uses of Open Space in the Coastal Barrier Resources System**

8636 For projects in CBRS units, the following land uses of acquired open space are generally not allowed:

- 8637 ▪ Any use FEMA determines is inconsistent with the allowable land uses identified above.
- 8638 ▪ Any uses determined by the recipient and/or FEMA as inconsistent with the regulations, the
8639 HMA Guide or deed restrictions.
- 8640 ▪ Paved surfaces.

8641 Communities may creatively salvage pre-existing structures on the acquired property. In some cases,
8642 the complete demolition of a structure may not be necessary—converting a closed-in structure with
8643 walls, such as a house, into an open picnic pavilion with a concrete slab floor and posts supporting
8644 the roof is possible.

8645 **B.1.6.4. Subsequent Transfer of a Property Interest**

8646 For postfederal award, the subrecipient may transfer a property interest only with the prior approval
8647 of the appropriate FEMA regional administrator and only to certain entities in accordance with [44](#)
8648 [CFR § 80.19\(b\)](#) and the HMA Guide.

8649 After acquiring the property interest, the subrecipient, including successors in interest, may convey
8650 any interest in the property only if the appropriate FEMA regional administrator, through the
8651 recipient, gives prior written approval of the transferee. The transferee must be another public entity
8652 or a qualified conservation organization. Property transfer to private citizens and corporations will not
8653 be approved. A qualified conservation organization is an organization whose purpose has been
8654 conservation for at least two years before the opening of the application period that resulted in the
8655 transfer of the property interest to the subrecipient, pursuant to [section 170\(h\)\(3\) and \(4\) of the](#)
8656 [Internal Revenue Code of 1954](#),³⁹³ and the applicable implementing regulations. The transferee
8657 must document its status as a qualified conservation organization where applicable.

8658 Any request to convey an interest in the property must include a signed statement that contains
8659 documentation of the following:

- 8660 ▪ The proposed transferee acknowledges and agrees to be bound by the terms of the original
8661 mitigation award/subaward conveyance according to [44 CFR part 80](#) and the HMA Guide.
- 8662 ▪ Reference and incorporation of the original deed restrictions providing notice of the
8663 conditions in this section.

³⁹³ Public Law 591, Chapter 736 (August 16, 1954), as amended

- 8664 ▪ Incorporation of a provision for the property interest to revert to the subrecipient or recipient
 8665 in the event the transferee ceases to exist or loses its eligible status as defined under this
 8666 section.³⁹⁴

8667 The subrecipient may convey an easement or lease to a private individual or entity for purposes that
 8668 are compatible with the uses described in [44 CFR § 80.19](#) and the HMA Guide with prior approval of
 8669 the appropriate FEMA regional administrator and as long as the conveyance does not include
 8670 authority to control and enforce the terms and conditions identified above. The FEMA regional
 8671 administrator may choose to consult with the FEMA Office of Chief Counsel in reviewing documents
 8672 proposed to convey an interest in the property. Any lease or easement must be for uses that are
 8673 compatible with open space purposes and is clearly subject to the land use and other restrictions of
 8674 the property by reference and/or incorporation of the recorded deed restriction language.

8675 **B.1.7. PROPERTY ACQUISITION FOR OPEN SPACE: RESOURCES**



8676 **Property Acquisition for Open Space Resources**

- 8677 ▪ FEMA Model Deed Restriction: https://www.fema.gov/sites/default/files/2020-08/fema_model-deed-restriction.pdf
- 8678
- 8679 ▪ FEMA BCA Toolkit: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>
- 8680 ▪ FEMA BCA webpage: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>
- 8681 ▪ EHP review job aids: <https://www.fema.gov/grants/mitigation/job-aids> (search “technical
 8682 review”)
- 8683 ▪ ASTM International Standard: <https://www.astm.org/Standards/E2247.htm>
- 8684 ▪ FEMA Statement of Voluntary Participation:
 8685 https://www.fema.gov/sites/default/files/documents/fema_form-ff-206-fy-21-124.pdf
- 8686 ▪ FEMA Model Statement of Assurances: [https://www.fema.gov/media-library-
 8687 data/1568922246149-
 8688 b9aa206afb2637099af8823d34e46757/Model_Statement_Assurances_PropAcq_Projec
 8689 ts_Final061719_508.pdf](https://www.fema.gov/media-library-data/1568922246149-b9aa206afb2637099af8823d34e46757/Model_Statement_Assurances_PropAcq_Projects_Final061719_508.pdf)
- 8690 ▪ FEMA Declaration and Release:
 8691 <https://www.fema.gov/pdf/assistance/process/00903.pdf>
- 8692 ▪ HMA Tool for Identifying Duplication of Benefits: [https://www.fema.gov/media-library-
 8693 data/20130726-1901-25045-3291/duplication_of_benefits_guide_2013.pdf](https://www.fema.gov/media-library-data/20130726-1901-25045-3291/duplication_of_benefits_guide_2013.pdf)

³⁹⁴ [44 CFR § 80.19](#)

8694
8695

- U.S. Fish & Wildlife Service federal project consistency consultation webpage:
<https://www.fws.gov/cbra/Consultations.html>

8696 **B.2. Mitigation Reconstruction**

8697 **B.2.1. MITIGATION RECONSTRUCTION: OVERVIEW**

8698 Mitigation reconstruction is the construction of an improved, elevated building on the same site
8699 where an existing building and/or foundation has been partially or completely demolished or
8700 destroyed. These projects include either total or partial demolition of the structure and result in the
8701 construction of code-compliant and hazard-resistant structures on elevated foundation systems.
8702 Mitigation reconstruction projects are not allowed in the regulatory floodway or Coastal High Hazard
8703 Area (Zones V, VE, and V1-V30 on FIRMs). Mitigation reconstruction projects must be designed using
8704 the best available data, including Base Flood Elevations, if available. Activities that result in the
8705 construction of new living space at or above the Base Flood Elevation will be considered only when
8706 consistent with the mitigation reconstruction requirements.

8707 **B.2.2. MITIGATION RECONSTRUCTION: ELIGIBILITY**

8708 Mitigation reconstruction projects are eligible under HMGP, HMGP Post Fire, BRIC and FMA.
8709 Mitigation reconstruction projects cannot be combined with other activity types in the same project
8710 subapplication to ensure the subapplication scope, schedule and budget adhere to program
8711 requirements.

8712 For FMA only, all properties included in a subapplication for mitigation reconstruction assistance
8713 must be NFIP-insured at the time of the opening of the application period. The flood insurance policy
8714 must be maintained throughout the period of performance and for the life of the structure.

8715 **B.2.2.1. Eligible Activities**

8716 Eligible activity categories under HMGP, HMGP Post Fire, BRIC and FMA are summarized in [Table 20](#).

8717 Eligible mitigation reconstruction costs are limited to a \$150,000 federal share per property. Some
8718 eligible activities, such as administrative allowances and permitting allowances, permitting fees and
8719 access facilities or ramps compliant with the Americans with Disabilities Act of 1990 (ADA)³⁹⁵ when
8720 requested by the owner, do not need to be included in the \$150,000 maximum federal share.

8721 The activities that are eligible as part of a federal award in mitigation reconstruction are divided into
8722 three categories: consultation and project scoping, pre-construction activities, and construction
8723 activities. The activities in each category that are eligible to the extent reasonable and necessary to
8724 perform the project purpose and their assistance limits are identified in [Table 21](#).

³⁹⁵ Public Law 101-336 (July 26, 1990), as amended, [42 U.S.C. § 12101](#).

8725 Mitigation reconstruction projects include either total or partial demolition of the site. All demolition
 8726 debris shall be removed and taken to an approved landfill. The following must be considered during
 8727 demolition:

- 8728 ▪ Asbestos and lead-based paint must be dealt with appropriately.
- 8729 ▪ Existing associated structures, garages and above-grade concrete slabs must be removed.
- 8730 ▪ Abandoned septic tanks, if not removed, must be emptied and the floors and walls must be
 8731 cracked or crumbled to prevent the tank from holding water. The tank must be filled with
 8732 sand or other clean fill.
- 8733 ▪ All foundation and basement walls not included in the project footprint shall be removed to
 8734 at least one foot below the finished grade of the site or as necessary to construct the new
 8735 foundations.
- 8736 ▪ All basements not included in the mitigation reconstruction project footprint shall be filled
 8737 with compacted clean fill. Prior to filling, basement floors should be provided with a minimum
 8738 1-foot-diameter hole in the floor to allow for drainage.
- 8739 ▪ Only trees that restrict the mitigation reconstruction work on any structure may be removed.
- 8740 ▪ Any abandoned utilities shall be terminated at least 2 feet below the finished grade of the
 8741 site.
- 8742 ▪ Any abandoned wells shall be capped and associated components removed.
- 8743 ▪ All disturbed areas must be graded and leveled; the top 12 inches of soil should be capable
 8744 of supporting vegetation in areas not included in the reconstructed footprint.

8745 **Table 20: Eligible Mitigation Reconstruction Activities**

Activity	HMGP	HMGP Post Fire	BRIC	FMA
Project scoping	Yes	Yes	Yes	Yes
Pre-construction activities	Yes	Yes	Yes	Yes
Construction activities	Yes	Yes	Yes	Yes
▪ Structural shell	Yes	Yes	Yes	Yes
▪ Interior partitioning	Yes	Yes	Yes	Yes
▪ Utility equipment	Yes	Yes	Yes	Yes
▪ Fixtures	Yes	Yes	Yes	Yes

Activity	HMGP	HMGP Post Fire	BRIC	FMA
Demolition and removal activities	Yes	Yes	Yes	Yes

8746

8747 **Table 21: Eligible Mitigation Reconstruction Activities and Assistance Limits**

Activity	Subject to Federal Share Assistance Limit of \$150,000	Not Subject to Federal Share Assistance Limit of \$150,000
Project scoping		
Property verification (e.g., size of pre-existing structure)	No	Yes
Preliminary elevation determination	No	Yes
Phase I environmental site assessment	No	Yes
Engineering feasibility study (e.g., Can an existing structure be elevated? Is mitigation reconstruction feasible?)	No	Yes
BCA	No	Yes
Title search (e.g., ownership verification)	No	Yes
Pre-construction activities		
Site survey (i.e., boundaries, elevation)	No	Yes
Soils/geotechnical testing; testing for asbestos and lead-based paint	No	Yes
Archaeological assessment Phase I	No	Yes
Local, state and federal permitting (e.g., EHP and USACE)	No	Yes
Architectural/engineering design/plans/specifications	No	Yes
Plan review	No	Yes
Construction activities		
Permitted disposal of routine asbestos, lead-based paint and household hazardous wastes incidental to demolition	No	Yes

Activity	Subject to Federal Share Assistance Limit of \$150,000	Not Subject to Federal Share Assistance Limit of \$150,000
EHP mitigation as required as a special award condition	No	Yes
Demolition/removal	Yes	No
Erosion control/grading/drainage	Yes	No
Utility connections	Yes	No
Landscaping for site stabilization (e.g., seeding)	Yes	No
Walkways and driveways	Yes	No
Elevated foundation construction	Yes	No
Inspection of foundation system	No	Yes
Structural shell		
Framing	Yes	No
Exterior doors	Yes	No
Windows (includes protection)	Yes	No
Access/egress	Yes	No
Exterior cladding	Yes	No
Roofing	Yes	No
Interior partitioning		
Drywall	Yes	No
Trim	Yes	No
Painting	Yes	No
Interior doors	Yes	No
Insulation	Yes	No
Utility equipment		
Heating, ventilation and air conditioning	Yes	No
Water/wastewater plumbing	Yes	No
Electrical panel and wiring	Yes	No

Activity	Subject to Federal Share Assistance Limit of \$150,000	Not Subject to Federal Share Assistance Limit of \$150,000
Hot water heater	Yes	No
Fixtures		
Sinks/toilets/showers	Yes	No
Lighting	Yes	No
Cabinets and countertops	Yes	No
Flooring	Yes	No
Building inspections	No	Yes
Certificate of occupancy	No	Yes
Final elevation certificate	No	Yes
Owner displacement costs	No	Yes
Tenant displacement costs	No	Yes
Prepare and record flood insurance requirement (after construction finalized)	No	Yes

8748 **B.2.2.2. Ineligible Activities**

8749 Projects must be consistent with the criteria described in [Part 4](#).

8750 Some mitigation reconstruction activities and their associated costs are not eligible. Ineligible costs
8751 include but are not limited to the following:

- 8752 ▪ Landscaping for ornamentation (e.g., trees, shrubs).
- 8753 ▪ Decks and garages not included as part of the foundation system.
- 8754 ▪ All construction activities not specifically noted in the HMA Guide and not specifically
8755 approved by FEMA in advance.
- 8756 ▪ Site remediation of hazardous materials.

8757 **B.2.2.3. Cost-Effectiveness**

8758 Applicants and subapplicants must demonstrate that mitigation projects are cost-effective. Projects
8759 must be consistent with [Part 5](#).

8760 Mitigation reconstruction projects in the SFHA may use the \$205,000 pre-calculated benefit for
8761 elevations. For up-to-date information on the dollar value of the pre-calculated benefit, see FEMA’s
8762 [“Benefit-Cost Analysis”](#) webpage.

8763 FEMA limits the federal cost share of mitigation reconstruction project to \$150,000 per structure.
8764 However, the costs captured in the BCA should reflect the total project cost required to complete the
8765 mitigation activity, not just the federal share.

8766 **B.2.2.4. Feasibility and Effectiveness**

8767 Projects must be consistent with [Part 4](#). Mitigation projects funded by HMA programs must be both
8768 feasible and effective at mitigating the risks of the hazard(s) for which the project was designed. A
8769 project’s feasibility is demonstrated through conformance with accepted engineering practices,
8770 established codes, standards, modeling techniques or best practices. All mitigation reconstruction
8771 activities must be completed in accordance with the latest published editions of the International
8772 Codes and [ASCE/SEI 7: Minimum Design Loads for Buildings and Other Structures](#). FEMA will use
8773 the latest published edition of [American Society of Civil Engineers \(ASCE\)/Structural Engineering
8774 Institute \(SEI\) Standard 24: Flood Resistant Design and Construction](#), or its equivalent as the
8775 minimum design criteria for all HMA-assisted structure elevation, dry floodproofing and mitigation
8776 reconstruction projects in flood hazard areas. In addition, all development in the SFHA must conform
8777 to local floodplain regulations and be permitted by the local floodplain administrator. All other
8778 applicable state and federal permits should be obtained.³⁹⁶

8779 The height to which a foundation can be constructed is a key factor in determining feasibility.
8780 Assistance in evaluating flood mitigation techniques can be found in [FEMA 551: Selecting
8781 Appropriate Mitigation Measures for Floodprone Structures](#) (March 2007). All proposed mitigation
8782 measures in FEMA 551 must be consistent with other HMA program criteria, such as eligible
8783 activities.

8784 FEMA developed guidance for designing appropriate foundations based on the requirements of the
8785 International Codes and other applicable coastal construction standards. That guidance is included
8786 in [FEMA P-550: Recommended Residential Construction for Coastal Areas: Building on Strong and
8787 Safe Foundations, Second Edition](#) (December 2009), which also includes sample foundation design
8788 calculations and drawings and detailed descriptions of the considerations for determining the
8789 feasibility of constructing to the required height. Although FEMA P-550 was developed in response to
8790 reconstruction needs after Hurricane Katrina, the design solutions can be used in coastal and
8791 noncoastal flood zones. FEMA P-550 recommends that users choose the appropriate foundation by
8792 following the Foundation Selection Decision Tree and that the sample designs be used for a
8793 maximum height of 8 feet for a closed foundation and up to 15 feet for an open foundation. A

³⁹⁶ [44 CFR § 60.3](#)

8794 licensed design professional should be consulted to determine feasibility for residential structures
8795 with required foundation heights that are greater than 15 feet.

8796 **B.2.2.5. Environmental and Historic Preservation**

8797 All subapplications submitted to FEMA must meet the EHP criteria in [Part 4](#). All subapplications must
8798 provide the information described in [Part 6](#) so that FEMA may perform the EHP review.

8799 The [Mitigation Reconstruction-Required Information for EHP Review](#) job aid lists the documentation
8800 needed for projects for FEMA to complete the EHP compliance review process.

8801 **B.2.2.6. National Flood Insurance Program Eligibility Requirements**

8802 Mitigation projects sited within the SFHA are eligible only if the jurisdiction is participating in the
8803 NFIP.

8804 **B.2.2.7. Special Flood Hazard Area Requirements**

8805 For structures in the SFHA at the completion of the project, flood insurance must be maintained for
8806 the life of the property.³⁹⁷

8807 **B.2.3. MITIGATION RECONSTRUCTION: APPLICATION AND SUBMISSION INFORMATION**

8808 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
8809 should have a scoping narrative in accordance with [Part 6](#). Project-specific criteria are highlighted
8810 below.

8811 FEMA may request additional information after the subapplication has been submitted to ensure all
8812 necessary information is received. However, all information required by the regulations and the HMA
8813 Guide must be received before an assistance decision and award or final approval can be made.

8814 For mitigation reconstruction projects, the subapplication must include the following:

- 8815 ▪ In the mitigation activity section of the subapplication, an explanation of why the
8816 subapplicant has chosen mitigation reconstruction instead of the other available activity
8817 types.
- 8818 ▪ Latitude/longitude to the nearest sixth decimal place, site photographs, site maps, and
8819 project plans and specifications with the location of the property clearly labeled on a FIRM.
- 8820 ▪ An activities description (as part of the scope of work) referencing industry standards or
8821 project plans and specifications.

³⁹⁷ [42 U.S.C. § 4012a\(a\)](#)

8822 **B.2.3.1. Budget**

8823 All subapplications should include a line-item breakdown of all anticipated costs.

8824 Subapplicants may apply for subrecipient management costs to cover administrative costs.

8825 Management costs must be included in the subapplication budget as a separate line item. More

8826 information about the requirements for management cost requests can be found in [Part 13](#).

8827 A detailed project budget shall be prepared by or under the supervision of the licensed design

8828 professional responsible for project design. Details pertaining to the project budget, such as

8829 submittal format, cost ranges, preparation requirements and source documentation are included in

8830 [Part 6](#).

8831 Each project requires a project budget as part of the technical and cost-effectiveness evaluation

8832 process. The project budget must include all reasonably anticipated project costs, including direct

8833 costs associated with project scoping and construction and closeout activities. The project budget

8834 should also be based on standard-grade construction.

8835 Federal share assistance will be estimated and obligated on a per-square-foot basis; reimbursement

8836 will be in a manner consistent with standard recipient procedures. Based on the foundation type and

8837 required elevation height, the applicant or subapplicant must develop a square-foot cost for each

8838 potential combination of structure characteristics. All structures of the same type within a

8839 subapplication will have costs allocated at the same square-foot rate. Subapplicants will identify the

8840 type and number of structures of each possible combination to be included in the proposed project.

8841 For cost-estimating purposes, the breakdown of structure types is based on the following structure

8842 and foundation characteristics:

8843 ▪ Structure type:

8844 ○ One story.

8845 ○ Two story.

8846 ▪ Foundation type:

8847 ○ Open foundation.

8848 ○ Closed foundation.

8849 ▪ Foundation height:

8850 ○ 0 to 5 feet.

8851 ○ 5 to 10 feet.

8852 ○ 10 to 15 feet.

8853 ○ Over 15 feet.

8854 Applicants or subapplicants must provide documentation of all square-foot budgets. Costs must be
8855 provided in dollars-per-square-foot format. The costs must be based on the construction of
8856 fundamental, code-compliant structures with essential appurtenances as described. This will allow a
8857 comparative review of projects of varying types within a region and will ensure reasonable
8858 construction costs have been submitted.

8859 **B.2.3.2. Activities Description**

8860 The activities description in the scope of work for mitigation reconstruction projects is expected to
8861 include the following general construction-related activities:

- 8862 ▪ Pre-construction.
- 8863 ▪ Site preparation.
- 8864 ▪ Foundation construction.
- 8865 ▪ Structural shell construction.
- 8866 ▪ Interior finishes.
- 8867 ▪ Construction completion.

8868 The activities are discussed further in [Part 6](#).

8869 In developing the mitigation reconstruction scope of work, the subapplicant should consider health
8870 issues involved with working with asbestos, mold and lead-based paint.

8871 The subapplicant should document whether the structure can be safely elevated with a low
8872 likelihood of collapse or disintegration during the process and if there is the need for a licensed
8873 engineer or architect to ensure structure elevation is possible.

8874 The square footage of a resulting structure must be no more than 10 percent greater than that of the
8875 original structure. Breezeways, decks, garages and other appurtenances are not considered part of
8876 the original square footage unless situated on the original foundation system. Original square
8877 footage must be documented in the subapplication through copies of tax records or other verifiable
8878 means.

8879 To facilitate project development and to ensure all potential costs have been estimated, a
8880 conceptual design of proposed activities must be prepared during subapplication development.

8881 **B.2.3.2.1.1. MITIGATION RECONSTRUCTION PROJECT SCOPING**

8882 Project scoping involves identifying and evaluating all aspects of a mitigation reconstruction project
8883 from beginning to end. This includes developing detailed project specifications, developing a work
8884 plan, and ensuring the project mitigates future damage to the reconstructed property. During project
8885 scoping, consideration should be given to all factors that have the potential to significantly affect
8886 project implementation, including work schedule, project location, project cost and project
8887 effectiveness.

8888 Although each structure’s construction will be designed by a licensed professional as part of the
8889 implementation of the project, basic design parameters for each structure must be established
8890 during project scoping, including foundation type, required foundation height, flood hazard
8891 conditions, appropriate wind design, project cost and site conditions. To aid potential subapplicants
8892 through the project scoping process, FEMA has developed detailed information regarding project
8893 budgets (see [Part 6](#)).

8894 All reasonable and necessary costs, including anticipated project costs, direct costs associated with
8895 project scoping and project review, changes suggested by a licensed design professional, and costs
8896 for the pre-construction and construction activities listed in [Table 21](#) are eligible project costs. All
8897 costs shall be based on the construction of fundamental, code-compliant structures as related to the
8898 codes and standards included or referred to in the HMA Guide. HMA requires compliance with the
8899 latest published editions of International Codes and ASCE 24, regardless of whether the community
8900 has adopted them. Eligible activities must adhere to all federal, state and local requirements.

8901 **B.2.3.2.1.2. DESIGN PARAMETERS**

8902 The primary design parameters that must be considered during project scoping include:

- 8903 ▪ **Foundation type:** A key consideration for scoping mitigation reconstruction projects is the
8904 required type of foundation. The type of foundation for a specific mitigation reconstruction
8905 project is based on the location of the property within a defined flood zone (based on the
8906 Base Flood Elevation or Advisory Base Flood Elevation) and the required height of the
8907 proposed structure above adjacent grade. During project scoping, the applicable flood zone
8908 or flood hazard area for each structure must be identified in addition to the associated
8909 foundation design requirements; this will help subapplicants determine the appropriate
8910 foundation type. The type of foundation that is selected affects the type and cost of
8911 construction and must be identified prior to subapplication submittal. Assistance in
8912 evaluating flood mitigation techniques can be found in FEMA 551. Detailed guidance on
8913 foundation designs and design parameters can be found in FEMA P-550.

- 8914 ▪ **Foundation height:** The required height to which a foundation must be constructed is a key
8915 factor in determining feasibility and cost. Assistance in evaluating flood mitigation
8916 techniques can be found in FEMA 551. FEMA developed guidance for designing appropriate
8917 foundations based on the requirements of the International Codes and other applicable
8918 coastal construction standards. That guidance is included in FEMA P-550, which also

- 8919 includes sample foundation design calculations and drawings. In this document, FEMA
8920 recommends sample designs and associated height limitations for various foundation types.
8921 For residential structures with required foundation heights greater than these limits, a
8922 licensed design professional should be consulted to determine feasibility.
- 8923
- 8924 ■ **Wind design considerations:** All mitigation reconstruction activities must be completed in
8925 accordance with the latest published editions of the International Codes, which include
8926 required wind design speed for the project location. An additional consideration is the
8927 requirement for the installation of shutters or other protective measures in windborne debris
8928 regions, defined as hurricane-prone regions located within 1 mile of the coastal mean high-
8929 water line where the basic design wind speed is 130 miles per hour (mph) or greater, or in
8930 areas where the basic wind design speed is 140 mph or greater, or Hawaii. During project
8931 scoping, projects located in these areas should be identified, and the associated cost of
shutters or protective measures must be included in project costs.
 - 8932 ■ **Seismic considerations:** For purposes of code application, seismic reconstruction of buildings
8933 will be considered as new buildings. All mitigation reconstruction activities must be
8934 completed in accordance with the latest published editions of the International Codes and
8935 [ASCE/SEI 7: Minimum Design Loads for Buildings and Other Structures](#), which include the
8936 required seismic design for the project location and expected seismic performance for new
8937 buildings. During project scoping, projects located within these areas should be identified
8938 and the associated cost of seismic design measures or protection must be included in
8939 project costs.
 - 8940 ■ **Project cost:** The requirements and preferences for mitigation reconstruction developed
8941 through the parameters described above will significantly affect the proposed activities' cost.
8942 Proposed costs must be developed for consideration of mitigation options and completion of
8943 the BCA. Detailed guidance on costing procedures is available from the appropriate FEMA
8944 regional office. In addition to these specific parameters, other considerations may need to be
8945 addressed during project scoping, including:
 - 8946 ○ Zoning requirements and other local ordinances.
 - 8947 ○ Soil conditions.
 - 8948 ○ Site access requirements.
 - 8949 ○ EHP considerations.
- 8950 HMGP, HMGP Post Fire, BRIC and FMA offer assistance for scoping and the development of
8951 engineering analyses to determine feasibility under project scoping/advance assistance. For more
8952 information, see [Part 11](#), Part 11.B Project Scoping/Advance Assistance.

8953 B.2.3.2.1.3. CODES AND STANDARDS

8954 Mitigation reconstruction projects must be designed and constructed to the minimum standard as
8955 established by the requirements of the latest published editions of the International Codes.
8956 Structures, including all parts and appurtenances, must be designed and constructed to safely
8957 support all loads, including dead loads, live loads, roof loads, floor loads, wind loads, flood loads,
8958 snow loads, seismic loads and combinations of loads expected to be imposed on the structure as
8959 defined in the codes and related documents referenced in the codes. The construction of structures
8960 must result in a system that provides a complete load path capable of transferring all loads from the
8961 point of origin through load-resisting elements to the soils supporting the foundations.

8962 FEMA will use the latest published edition of ASCE 24 or its equivalent as the minimum design
8963 criteria for all HMA-assisted structure elevation, dry floodproofing and mitigation reconstruction
8964 projects in flood hazard areas. ASCE 24 establishes minimum requirements for flood-resistant
8965 design and construction of structures that are subject to building code requirements and that are
8966 located, in whole or in part, in flood hazard areas. The use of the ASCE standard or its equivalent will
8967 allow applicants to better demonstrate the technical feasibility and effectiveness of HMA projects in
8968 flood hazard areas and facilitate consistency in implementing HMA-assisted projects in flood hazard
8969 areas. The best available data will be required for Coastal A Zone design requirements where the
8970 Limit of Moderate Wave Action is not mapped.

8971 FEMA published a guidance document: [Guidance for Applying ASCE 24 Engineering Standards to](#)
8972 [HMA Flood Retrofitting and Reconstruction Projects](#) (November 2013), to assist applicants with the
8973 practicalities of how to apply the latest published edition of the ASCE 24 to their projects.
8974 ASCE/SEI24 applies to both new construction and substantial improvements.

8975 One- and two-family dwellings must be designed and constructed to meet, at a minimum, the
8976 requirements of the latest published editions of the International Code Council (ICC) [International](#)
8977 [Residential Code](#) and ASCE 24. The standards include ICC [Appendix G to the International Building](#)
8978 [Code \(IBC\): Flood Resistant Construction](#), for all occupancies including residential, commercial and
8979 other occupancies. The latest published edition of the International Codes will be the acceptable
8980 requirement if the jurisdiction has not adopted a consensus-based code or if the adopted code is
8981 older than the two latest published editions of the applicable International Codes.

8982 Multifamily dwellings must be designed and constructed to meet, at a minimum, the requirements of
8983 the most recently published editions of the International Codes. These codes are the minimum
8984 applicable requirement until and unless a subsequent edition of that code is adopted by the
8985 governing jurisdiction. For purposes of this program, the absence of an adopted building code in a
8986 participating jurisdiction or a jurisdiction's use of a building code that does not meet the
8987 International Codes' requirements will not relieve the subapplicant from meeting the minimum
8988 design and construction requirements.

8989 Installation of manufactured homes must follow regulations and guidance provided by the U.S.
8990 Department of Housing and Urban Development and the state administering agency. In addition, for
8991 installations in the SFHA, the flood provisions in the latest published edition of [National Fire](#)

8992 [Protection Association \(NFPA\) 225](#): *Model Manufactured Home Installation Standard*, are the
 8993 minimum requirement. This document details the standards for preparing sites and foundations on
 8994 which manufactured homes are installed and the procedures for on-site installation of homes.

8995 FEMA provides additional guidance, including recommended prescriptive pre-engineered foundation
 8996 design in [FEMA P-85](#): *Protecting Manufactured Homes from Floods and Other Hazards, Second*
 8997 *Edition* (November 2009). FEMA P-85 provides a best-practices approach in reducing damage from
 8998 natural hazards.

8999 Project construction documents, including design drawings and specifications, must be signed and
 9000 sealed by a design professional licensed in the state the project is to be constructed in. The
 9001 documents must also be certified for compliance with the codes, standards and minimum
 9002 construction requirements specified in the HMA Guide. Construction documents must be produced
 9003 prior to the start of construction but are not required for submittal as part of an application. The
 9004 construction documents must include a statement from a design professional (i.e., a licensed
 9005 architect or licensed professional engineer in the state the project is located in) that the design
 9006 meets or exceeds the applicable most recently published editions of the International Codes.
 9007 Construction documents based on standard details developed by a manufacturer or material
 9008 supplier, including framing members, framing connections and roofing, and siding or appurtenance
 9009 fasteners must be signed and sealed by a design professional licensed in the state the project is
 9010 constructed in.

9011 **B.2.3.3. Schedule**

9012 If increased cost of compliance assistance through a standard flood insurance policy is used as cost-
 9013 share for a project, policyholders have up to six years from the date of the underlying flood loss to
 9014 complete the eligible mitigation activity. The increased cost of compliance payment is up to \$30,000;
 9015 it can be used as the non-federal match for demolition, elevation, relocation and floodproofing of a
 9016 structure substantially damaged by flooding. Consideration of increased cost of compliance as local
 9017 cost share should be early in the scoping or project development process.

9018 **B.2.3.4. Feasibility and Effectiveness Documentation**

9019 All subapplications should provide information so FEMA can determine the feasibility and
 9020 effectiveness of the proposed mitigation activity. See [Part 6](#) for more information.

9021 **B.2.3.5. Environmental and Historic Preservation Documentation**

9022 All subapplications submitted to FEMA must meet the EHP criteria in [Part 4](#). All subapplications must
 9023 provide the information described in [Part 6](#) so that FEMA may perform the EHP review.

9024 **B.2.4. MITIGATION RECONSTRUCTION: SUBAWARD IMPLEMENTATION**

9025 Project implementation includes everything needed to complete the project. Implementation
 9026 includes the pre-construction activities of plan review and inspection; site preparation; and all

9027 construction activities, including building the foundation and structural shell, completing the interior
9028 finishes, as well as obtaining all builder certifications.

9029 **B.2.4.1. Pre-Construction Activities**

9030 Pre-construction activities for each structure include project design, analysis and permitting required
9031 to meet the assistance requirements.

9032 The project design will be performed by or under the direct supervision of a design professional (i.e.,
9033 a licensed architect or licensed professional engineer in the state the project is located in). The
9034 design must include all calculations, analysis and research necessary to determine the forces
9035 expected to act on the project structure. The design must account for all attachments and
9036 appurtenances. The selected structural framing members must be sufficient to provide a load path
9037 for all load-bearing members to transfer design loads to the foundations. The design must also
9038 account for the connections required to transfer loads from one member to another in accordance
9039 with the design concept.

9040 Assistance in evaluating flood mitigation techniques can be found in FEMA 551. Design and
9041 construction techniques for building foundations can be found in FEMA P-550, which describes in
9042 detail the considerations for determining the feasibility of constructing to the required height.
9043 Although FEMA P-550 was developed in response to the reconstruction needs after Hurricane
9044 Katrina, the design solutions provided can be used in both coastal and noncoastal flood zones.

9045 The design process must also include any testing required to establish site-specific design
9046 parameters, such as soil borings conducted as part of a geotechnical exploration, to determine
9047 foundation requirements.

9048 Prior to construction, each subapplicant must obtain all applicable permits and pay all required
9049 permitting fees. Applicable permits are expected to include, but not be limited to:

- 9050 ▪ Zoning or land use approvals.
- 9051 ▪ Environmental permits or required certifications.
- 9052 ▪ Historic preservation approvals.
- 9053 ▪ Building permits.

9054 **B.2.4.1.1. Plan Review and Inspections**

9055 Construction drawings and specifications must be reviewed by the local jurisdiction's building official
9056 prior to the start of construction.³⁹⁸ If the local jurisdiction has not established a building
9057 department, the reviews must be conducted by an independent licensed design professional

³⁹⁸ IBC, section 104

9058 retained by the jurisdiction to conduct such reviews. The reviewing design professional must be
9059 licensed in the state in which the project is located. Payment for the reviewing design professional is
9060 an allowable cost. Construction inspections must be conducted to verify the project was constructed
9061 in full accordance with the approved design and the applicable International Codes. Construction
9062 inspections must be conducted by the office of the building official or under the direct supervision of
9063 a design professional licensed in the state where the project is located, as applicable.

9064 **B.2.4.1.2. Site Preparation**

9065 Site preparation activities include demolition of existing structures, removal and disposal of project
9066 debris, site environmental restoration, utility relocation and site grading required as part of the
9067 project. The subrecipient must conduct a Phase I environmental site assessment in accordance with
9068 the EPA's "all appropriate inquiries" rule ([40 CFR part 312](#)) and [ASTM E2247](#). A clean-site
9069 certification from the appropriate federal or state agency is required for properties that were subject
9070 to remedial, removal, response or corrective actions for hazardous materials. Environmental site
9071 remediation costs are not eligible.

9072 **B.2.4.2. Construction Activities**

9073 The following information covers the requirements for foundation construction, structural shell
9074 construction, interior finishes, construction completion, builder certification and certificate of
9075 occupancy.

9076 **B.2.4.2.1. Foundation Construction**

9077 Foundation construction activities include installation, monitoring and testing (if required) of
9078 foundations supporting the structure. Assistance in evaluating flood mitigation techniques can be
9079 found in FEMA 551. Design and construction techniques for building foundations can be found in
9080 FEMA P-550. FEMA P-550 describes in detail the considerations for determining the feasibility of
9081 constructing to the required height. Although FEMA P-550 was developed in response to the
9082 reconstruction needs after Hurricane Katrina, the design solutions provided can be used in both
9083 coastal and noncoastal flood zones. Additionally, NFIP Technical Bulletins can be used to meet
9084 floodplain management criteria for specific structures or geologic circumstances.

9085 Installation of an open foundation system must be monitored to ensure the foundation elements are
9086 installed to the depth and achieve the load capacity specified in the construction documents.
9087 Foundation construction monitoring can be conducted by a building official or their designee, the
9088 licensed design professional responsible for the project design, or an independent agency.

9089 **B.2.4.2.2. Structural Shell Construction**

9090 Structural shell construction activities include all framing, load-carrying elements, attachments and
9091 building envelope components above the foundation. Because rough-in installation of electrical,
9092 communications, plumbing and mechanical systems may require drilling through or making notches
9093 in load-carrying elements, such rough-in work is also part of the structural shell construction

9094 activities. Structural shell construction activities must include an inspection of the completed shell
9095 prior to interior work covering the framing. The engineering inspection must verify the size, location
9096 and materials used in the construction are in conformance with the construction drawings and the
9097 applicable International Codes.

9098 The results of an engineering inspection by, or under the direct supervision of, the responsible
9099 licensed design professional or an independent agency must be presented in a written report signed
9100 and sealed by the licensed design professional in charge of the monitoring. The engineering
9101 inspections must be conducted by a building official or their designee. The licensed design
9102 professional responsible for the project design may inspect the structure for quality control reasons.

9103 **B.2.4.2.3. Interior Finishes**

9104 Interior finish activities include installation of interior walls, flooring, wiring/lighting fixtures,
9105 insulation, plumbing and mechanical fixtures, kitchen/bath counters, cabinets, sinks, toilets,
9106 tubs/showers, and heating, ventilation, and air conditioning. Inspections of these interior finishes
9107 must be conducted in accordance with the requirements of the applicable International Codes.

9108 **B.2.4.2.4. Builder Certification**

9109 At a minimum, all work must be performed by contractors licensed or registered in the state where
9110 they are working and who maintain appropriate insurance coverage. In addition, contractors must
9111 adhere to more stringent local requirements, where applicable.

9112 **B.2.4.2.5. Certificate of Occupancy**

9113 Projects assisted under this program shall not be occupied, or the occupancy category changed,
9114 without prior issuance of a Certificate of Occupancy by the governing local jurisdiction. In
9115 jurisdictions that have adopted the International Codes, the Certificate of Occupancy shall be issued
9116 only after the building official inspects the structure and finds no violations of the provisions of
9117 applicable codes or other laws enforced by the building department, as well as the provisions and
9118 requirements of the HMA Guide.

9119 In the absence of an adopted building code in a participating jurisdiction, or the absence of a
9120 designated building official, the required inspections shall be conducted by or under the direct
9121 supervision of an appropriate design professional licensed in the state where the project is located.
9122 In communities that have not adopted the International Codes, the state building commission shall
9123 determine the education, training, and experience requirements for inspectors responsible for
9124 conducting inspections.

9125 Inspections required prior to the issuance of a Certificate of Occupancy include but are not limited to
9126 the following:

- 9127 ▪ **Demolition inspection:** Inspections shall be made after all utility connections have been
9128 disconnected and secured in such a manner that no unsafe or unsanitary conditions exist on
9129 the site during or after demolition operations.

- 9130 ▪ **Foundation inspection:** Inspections shall be made during foundation construction to verify
9131 the foundations have been installed to the depth and capacity specified in the construction
9132 documents.

- 9133 ▪ **Floodplain inspection:** Inspections must be made for properties located in the SFHA upon
9134 placement of the lowest floor and prior to subsequent vertical construction. Documentation
9135 of the elevation of the lowest floor must be provided by a land surveyor, engineer or architect
9136 authorized by law to certify elevation information in the state where the project is located.
9137 Handheld global positioning system (commonly known as GPS) -derived ground elevations
9138 are not acceptable to meet this requirement. In addition, setbacks and distances from water
9139 courses, the regulatory floodway, Zone V and the mapped limit of the 1.5-foot breaking wave
9140 zone should be checked prior to construction.

- 9141 ▪ **Framing inspection:** Inspections must be made after the roof is in place, including all framing
9142 and bracing, and after the plumbing, mechanical and electrical rough-ins are complete. The
9143 framing inspections must verify framing members are of the type, size and grade indicated
9144 on the construction documents and the connections and fasteners have been installed in
9145 accordance with the applicable codes and construction documents.

- 9146 ▪ **Sheathing inspection:** Inspections must be conducted after all roof and wall sheathing and
9147 fasteners are complete and, at a minimum, must include inspection of the roof sheathing,
9148 wall sheathing, sheathing fasteners and roof/wall dry-in.

- 9149 ▪ **Final inspection:** A final inspection must be completed to document compliance with all
9150 requirements of the International Codes, local floodplain ordinances and any other state or
9151 local regulations.

9152 A comprehensive list of all required inspections, permits and certifications is included in the
9153 International Codes. Additional information on flood-related inspections, including sample checklists,
9154 can be found in the [ICC/FEMA document: Reducing Flood Losses through the International Codes:
9155 Coordinating Building Codes and Floodplain Management Regulations, 5th Edition \(October 2019\).](#)

9156 **B.2.5. MITIGATION RECONSTRUCTION: CLOSEOUT**

9157 Recipients and subrecipients must closeout projects in a timely manner consistent with [Part 9](#).

9158 In addition to the typical HMA program closeout processes, closeout of mitigation reconstruction
9159 projects generally includes the following:

- 9160 A Certificate of Occupancy and [FEMA Form 086-0-33: Elevation Certificate](#) for each structure in
9161 the subaward to certify the structure is code compliant and was elevated to the required

9162 elevation. FEMA will use the latest published edition of ASCE 24 or its equivalent as the
 9163 minimum design criteria.

- 9164 ▪ A copy of a recorded deed for each property, including requirements for property
 9165 maintenance and flood insurance requirements.
- 9166 ▪ A signed *Acknowledgement of Conditions for Mitigation of Property in an SFHA with FEMA*
 9167 *Grant Funds* form for each structure.
- 9168 ▪ A certification from a building official or licensed design professional verifying the structure
 9169 was designed and constructed to the minimum standard of the two most recently published
 9170 editions of the International Codes, even in locations where no code has been adopted.
- 9171 ▪ A front, rear and side photograph of the final elevated structure, including the date of the
 9172 photograph, property address, latitude/longitude to the nearest sixth decimal place, source
 9173 of photograph and name of the photographer.
- 9174 ▪ Verification by the recipient that final square footage is within 10 percent of original structure
 9175 square footage at the time of closeout.
- 9176 ▪ Verification of flood insurance for each structure.
- 9177 ▪ Update of the property site information in the FEMA electronic application system for each
 9178 structure.

9179 **B.2.6. MITIGATION RECONSTRUCTION: RESOURCES**



Mitigation Reconstruction Resources

- 9181 ▪ FEMA BCA Toolkit: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>
- 9182 ▪ FEMA BCA webpage: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>
- 9183 ▪ EHP Review job aids: [https://www.fema.gov/grants/guidance-tools/environmental-](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
 9184 [historic/preparation-resources](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
- 9185 ▪ FEMA 551 – Selecting Appropriate Mitigation Measures for Floodprone Structures:
 9186 https://www.fema.gov/sites/default/files/2020-08/fema_551.pdf
- 9187 ▪ FEMA P-550 – Recommended Residential Construction for Coastal Areas: Building on
 9188 Strong and Safe Foundations: [https://www.fema.gov/emergency-managers/risk-](https://www.fema.gov/emergency-managers/risk-management/building-science/flood)
 9189 [management/building-science/flood](https://www.fema.gov/emergency-managers/risk-management/building-science/flood)
- 9190 ▪ Overview of FEMA P-550: [https://www.fema.gov/sites/default/files/2020-](https://www.fema.gov/sites/default/files/2020-07/fema550_flyer_052219.pdf)
 9191 [07/fema550_flyer_052219.pdf](https://www.fema.gov/sites/default/files/2020-07/fema550_flyer_052219.pdf)
- 9192 ▪ ASCE 24: <https://ascelibrary.org/doi/book/10.1061/asce24>

- 9193 ▪ Guidance for Applying ASCE 24 Engineering Standards to HMA Flood Retrofitting and
9194 Reconstruction Projects: [https://www.fema.gov/emergency-managers/risk-
management/building-science/flood](https://www.fema.gov/emergency-managers/risk-
9195 management/building-science/flood)
- 9196 ▪ International Residential Code for One- and Two-Family Dwellings:
9197 <https://www.iccsafe.org/products-and-services/i-codes/2018-i-codes/irc/>
- 9198 ▪ National Fire Protection Association 225, Model Manufactured Home Installation Standard:
9199 [https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-
standards/detail?code=225](https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-
9200 standards/detail?code=225)
- 9201 ▪ FEMA P-85, Protecting Manufactured Homes from Floods and Other Hazards:
9202 https://www.fema.gov/sites/default/files/2020-08/fema_p85.pdf
- 9203 ▪ NFIP Technical Bulletins: [https://www.fema.gov/emergency-managers/risk-
management/building-science/national-flood-insurance-technical-bulletins](https://www.fema.gov/emergency-managers/risk-
9204 management/building-science/national-flood-insurance-technical-bulletins)
- 9205 ▪ International Code Council’s Reducing Flood Losses through the International Codes:
9206 [https://www.fema.gov/sites/default/files/2020-07/fema_reducing_flood_losses_rfl_5th-
ed.pdf](https://www.fema.gov/sites/default/files/2020-07/fema_reducing_flood_losses_rfl_5th-
9207 ed.pdf)

9208 **B.3. Structure Elevation**

9209 **B.3.1. STRUCTURE ELEVATION: OVERVIEW**

9210 Structure elevation activities generally involve physically raising an existing structure to an elevation
9211 at the Base Flood Elevation or higher, if required by FEMA or local ordinance, and may account for
9212 future conditions. Structure elevation may be achieved through various methods, including elevating
9213 on continuous foundation walls; elevating on open foundations, such as piles, piers, posts or
9214 columns; elevating on fill; and converting the second story. Foundations must be designed to
9215 properly address all loads and be appropriately connected to the floor structure above. Utilities must
9216 also be properly elevated. Buildings proposed for elevation must be structurally sound and capable
9217 of being elevated safely.

9218 **B.3.2. STRUCTURE ELEVATION: ELIGIBILITY**

9219 FEMA requires applicants and subapplicants to design all structure elevation projects in accordance
9220 with the NFIP standards in [44 CFR part 60](#) and the latest published edition of ASCE 24 or its
9221 equivalent as minimum design criteria. The scope of work narrative should clearly state the structure
9222 elevation will be designed to meet ASCE 24 criteria.

9223 **B.3.2.1. Eligibility Criteria**

9224 For a property to be eligible for structure elevation, it must be structurally sound and capable of
9225 being elevated safely. The bottom of the lowest floor must be elevated above the Base Flood
9226 Elevation or elevation required by FEMA, local ordinance or design flood elevation, whichever is
9227 highest.

9228 In cases where a building cannot be elevated, the ground floor living space can be filled in or
9229 repurposed and used for parking, storage or building access. The existing second floor is converted
9230 to the new living space or the roof is removed and additional living space is constructed over the
9231 existing living space. This project is called a second-story conversion. For second-story conversion
9232 projects, the bottom of the second story must be above the Base Flood Elevation or elevation
9233 required by FEMA, local ordinance or design flood elevation, whichever is highest.

9234 The property owner must voluntarily agree to participate in the elevation program. During the
9235 development of an elevation project, property owners are responsible for notifying the subapplicant
9236 of their interest in participating in the proposed project. They must provide all the information
9237 requested by the subapplicant, and they must finish all the actions required to complete the
9238 subapplication and to carry out the structure elevation.

9239 **B.3.2.2. Eligible Activities**

9240 [Table 22](#) outlines structure elevation activities eligible under the following programs:

9241 **Table 22: Eligible Structure Elevation Activities**

<i>Eligible Activities</i>	HMGP	HMGP Post Fire	BRIC	FMA
Elevating on continuous foundation walls	Yes	Yes	Yes	Yes
Elevating on open foundations (e.g., piles, posts, piers)	Yes	Yes	Yes	Yes
Elevating on fill	Yes	Yes	Yes	Yes
Second-story conversion	Yes	Yes	Yes	Yes

9242 **B.3.2.2.1. Design Considerations**

9243 Buildings proposed for structure elevation must be structurally sound and capable of being elevated
 9244 safely. A report of an inspection completed by a qualified professional (e.g., licensed engineer or
 9245 architect, local building code official) may be used to document the structural soundness of the
 9246 property to be elevated. Important design considerations for structure elevations are as follows:

- 9247 ▪ FEMA’s minimum requirements for elevation are that the lowest floor of the structure must
 9248 be to the Base Flood Elevation or to the elevation specified in the local ordinance if higher.
 9249 FEMA also encourages consideration of future conditions, including sea level rise, when
 9250 determining the elevation height and will assist elevations higher than the minimum
 9251 requirements if they remain cost-effective. Upon completion of the elevation work, an
 9252 Elevation Certificate (FEMA Form 086-0-33) verifying “as-built” elevations must be completed
 9253 to ensure the structure complies with the local floodplain ordinance and NFIP floodplain
 9254 management and HMA requirements.

- 9255 ▪ Sea level rise can be applied to projects in any U.S. coastal area where relative sea level rise
 9256 data are available. This includes areas subject to coastal flooding as identified in the current
 9257 NFIP flood study or coastal rivers and streams located as far inland as the extent of
 9258 estimated tidal influence or storm surge. When performing structure elevation projects or
 9259 projects that have freeboard requirements, sea level rise estimates should be added to the
 9260 state or local jurisdiction’s freeboard requirements if those freeboard requirements do not
 9261 exceed the projected sea level rise during the project’s useful life.

- 9262 ▪ Elevation projects must be designed and adequately anchored to prevent flotation, collapse
 9263 and lateral movement of the structure due to hydrodynamic and hydrostatic loads, including
 9264 the effects of buoyancy. FEMA recommends that an engineer certify that the design elevation
 9265 will withstand the depth and velocity of 1-percent annual chance flood events (hydrostatic
 9266 and hydrodynamic loads), any potential increase in wind load or any other relevant load
 9267 factors.

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³⁹⁹ [44 CFR § 60.3\(c\)\(5\)](#)

9304 *Requirements for Structural Concrete (ACI 318R)*. If the slab is nonstructural in nature, then
 9305 an alternate foundation elevation method should be considered. Additional information is
 9306 available in [FEMA P-312: Homeowner’s Guide to Retrofitting: Six Ways to Protect Your Home](#)
 9307 *From Flooding, 3rd Edition* (June 2014).

9308 **B.3.2.2.2. Use of American Society of Civil Engineers 24 as Minimum Design Requirements for**
 9309 **Certain Flood Risk Reduction Activities**

9310 FEMA will use the latest published edition of ASCE 24 or its equivalent as the minimum design
 9311 criteria for all HMA-assisted structure elevation, dry floodproofing and mitigation reconstruction
 9312 projects in flood hazard areas. ASCE 24 establishes minimum requirements for flood-resistant
 9313 design and construction of structures that are subject to building code requirements and that are
 9314 located, in whole or in part, in flood hazard areas. The use of the ASCE 24 standard or its equivalent
 9315 will allow applicants to better demonstrate the technical feasibility and effectiveness of HMA projects
 9316 in flood hazard areas and facilitate consistency in implementing HMA-assisted projects in flood
 9317 hazard areas.

9318 **B.3.2.3. Ineligible Activities**

9319 The project must be consistent with the criteria described in [Part 4](#).

9320 Structure elevation activities are not eligible for assistance in the following circumstances:

- 9321 ▪ Mitigation projects sited within the SFHA in a jurisdiction that is not participating in the NFIP.
- 9322 ▪ Structures that had previously received HMA but did not comply with the requirement to
 9323 maintain flood insurance for the life of the property.⁴⁰⁰
- 9324 ▪ Structures that are found to be not structurally sound or site conditions that will not support
 9325 elevation.

9326 See **B.3.3.2.2 Ineligible Structure Elevation Costs** for additional activities that are considered
 9327 ineligible.

9328 **B.3.2.4. Cost-Effectiveness**

9329 Applicants and subapplicants must demonstrate that mitigation projects are cost-effective. Projects
 9330 must be consistent with [Part 5](#).

9331 FEMA will fund hazard mitigation projects that include sea level rise estimates. To incorporate
 9332 considerations for sea level rise in the development of a BCA, recipients and subrecipients should
 9333 add the estimated sea level rise to the current 10-percent, 4-percent, 2-percent and 1-percent
 9334 annual chance flood elevations for their area. Generally, sea level rise can be included in flood

⁴⁰⁰ [42 U.S.C. § 4012a\(a\)](#)

9335 elevations when conducting BCAs in coastal areas using the full data flood module. Sea level rise
 9336 can be applied to projects in any U.S. coastal area where relative sea level rise data are available.
 9337 This includes areas subject to coastal flooding as identified in the current NFIP flood study or coastal
 9338 rivers and streams located as far inland as the extent of estimated tidal influence or storm surge.

9339 When performing structure elevation projects or projects that have freeboard requirements, sea level
 9340 rise estimates should be added to the state or local jurisdiction’s freeboard requirements if those
 9341 freeboard requirements do not exceed the projected sea level rise during the project’s useful life.

9342 **B.3.2.4.1. Pre-Calculated Benefits for Elevation**

9343 Based on extensive analysis, FEMA determined pre-calculated benefits for elevation projects located
 9344 in the SFHA. This analysis demonstrates a national average for benefits of \$205,000 for elevation
 9345 projects. Therefore, FEMA has determined the elevation of a structure located in the 1-percent
 9346 annual chance floodplain for which costs are equal to or less than \$205,000 is cost-effective.

9347 Alternatively, if a structure’s Lowest Floor Elevation is lower than the Base Flood Elevation, the pre-
 9348 calculated benefit may be used even if the structure is not in a mapped SFHA. For projects that
 9349 contain multiple structures, the average cost of all structures in the project must meet the stated
 9350 criterion.

9351 To qualify for these pre-calculated benefits, the applicant or subapplicant must include maps with
 9352 each structure’s footprint clearly identified and the SFHA delineated as part of the application. If a
 9353 structure or any part of a structure lies in the 1-percent annual chance floodplain, the applicant or
 9354 subapplicant can use the pre-calculated benefits for the structure.

9355 If the applicant or subapplicant cannot clearly demonstrate a structure is in the SFHA, then the
 9356 finished floor elevation and Base Flood Elevation should be included in the BCA for the structure. If
 9357 the finished floor elevation is less than Base Flood Elevation, the applicant or subapplicant can use
 9358 the pre-calculated benefits for the structure. No other detailed analysis will be required. These pre-
 9359 calculated benefits can be used for both riverine and coastal areas.

9360 Additionally, the specific geographic location of structures can greatly increase elevation costs. The
 9361 benefits identified above may be adjusted by the recipient and subrecipient using locality multipliers
 9362 included in industry-accepted cost and pricing guides for construction. If a multiplier is used, a copy
 9363 of the source document must be included as part of the application for review and the methodology
 9364 demonstrated for the increase of benefits. Also, the applicant or subapplicant should use the most
 9365 up-to-date locality multiplier at the time of application.

9366 For up-to-date information on the dollar value of pre-calculated benefits, visit FEMA’s [“Benefit-Cost
 9367 Analysis”](#) webpage.

9368 **B.3.2.5. Feasibility and Effectiveness**

9369 Projects must be consistent with [Part 4](#). Mitigation projects assisted by HMA must be both feasible
 9370 and effective at mitigating the risks of the hazard(s) for which the project was designed. A project’s
 9371 feasibility is demonstrated through conformance with accepted engineering practices, established
 9372 codes, standards, modeling techniques or best practices.

9373 For structure elevation, the subapplicant must include a statement from a local official certifying the
 9374 community will retain a qualified licensed professional to design the project in conformance with
 9375 latest published edition of ASCE 24 and will meet the feasibility and effectiveness requirements.

9376 **B.3.2.6. Environmental and Historic Preservation**

9377 All subapplications submitted to FEMA must meet the EHP criteria in [Part 4](#). All subapplications must
 9378 provide the information described in [Part 6](#) so that FEMA may perform the EHP review.

9379 **B.3.3. STRUCTURE ELEVATION: APPLICATION AND SUBMISSION INFORMATION**

9380 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
 9381 should have a scoping narrative in accordance with [Part 6](#). Project-specific criteria are highlighted
 9382 below.

9383 FEMA may request additional information after the subapplication has been submitted to ensure all
 9384 necessary information is received. However, all information required by the regulations and the HMA
 9385 Guide must be received before an assistance decision and award or final approval can be made.

9386 For structure elevation projects, the subapplication must include the following for each structure:

- 9387 ▪ Physical address and property owner(’s) name(s).
- 9388 ▪ Longitude and latitude coordinates to the nearest sixth decimal place.
- 9389 ▪ Clear color photographs of each side of the building to be elevated.
- 9390 ▪ Color photographs of the surrounding neighborhood taken from the site of the building to be
 9391 elevated.
- 9392 ▪ Estimated cost to elevate each structure.
- 9393 ▪ Name and location of flooding source (e.g., creek, river, watershed or location of stormwater
 9394 ponding) and location of the property on the applicable FIRM.
- 9395 ▪ The proposed elevation of the lowest finished floor for each structure to be mitigated, the
 9396 Base Flood Elevation and the current elevation of the lowest finished floor. If future
 9397 conditions are being considered, documentation that supports those conditions and their
 9398 impacts on the elevation should be included.

- 9399 ▪ Type of existing foundation (slab-on-grade, crawl space, basement or open foundation) and
- 9400 the proposed elevation method and standard to be used.

- 9401 ▪ Statement that the project will be designed in compliance with NFIP standards in [44 CFR §](#)
- 9402 [60.3](#).

- 9403 ▪ Schedule showing anticipated start and completion dates, significant milestones, activities
- 9404 and deliverables.

9405 **B.3.3.1. Budget**

- 9406 All subapplications should include a line-item breakdown of all anticipated costs.

- 9407 Subapplicants may apply for subrecipient management costs to cover administrative costs.
- 9408 Management costs must be included in the subapplication budget as a separate line item. More
- 9409 information about the requirements for management cost requests can be found in [Part 13](#).

9410 **B.3.3.2. Costs**

9411 **B.3.3.2.1. Eligible Structure Elevation Costs**

9412 Allowable costs are costs that are necessary and reasonable for the proper and efficient

9413 performance and administration of the federal award. The following costs associated with structure

9414 elevation projects are generally allowable:

- 9415 ▪ Engineering services for design, structural feasibility analysis and budget preparation.

- 9416 ▪ Surveying, soil sampling, completion of Elevation Certificate (FEMA Form 086-0-33), title
- 9417 search, deed recordation fees, legal and/or permitting fees, project administration and
- 9418 construction management.

- 9419 ▪ Disconnection of all utilities.

- 9420 ▪ Building of a foundation so that the lowest floor is at the Base Flood Elevation or higher if
- 9421 required by local ordinance or FEMA.

- 9422 ▪ Physical elevation of the structure and subsequent lowering and attachment of the structure
- 9423 onto a new foundation.

- 9424 ▪ Construction of a floor system that meets minimum building code requirements when the
- 9425 existing floor system cannot be elevated or is not appropriate for the new foundation.

- 9426 ▪ Reconnecting utilities and extending lines and pipes as necessary and elevating all utilities
- 9427 and service equipment.

- 9428 ▪ Debris disposal and erosion control.

- 9429 ▪ Repair of lawns, landscaping, sidewalks and driveways if damaged by elevation activities.
- 9430 ▪ Construction of a utility room above the Base Flood Elevation only if there is no existing
- 9431 space within the house for this purpose or there is no alternative cost-effective way to
- 9432 elevate the utilities.
- 9433 ▪ Elevation of existing decks, porches or stairs.
- 9434 ▪ Construction of new stairs, landings and railings to access the elevated living space per
- 9435 minimum code or local ordinance.
- 9436 ▪ Construction of ADA-compliant access facilities or ramps when an owner or a member of the
- 9437 owner’s family has a permanent disability and a physician’s written certification. An ADA-
- 9438 compliant access to ingress/egress is allowable for assistance unless specified otherwise in
- 9439 applicable state or local codes. If ramps are not technically feasible, a mechanical chair lift
- 9440 may be installed.
- 9441 ▪ Documented reasonable living expenses (except food and personal transportation) that are
- 9442 incurred while the owner is displaced by the elevation construction.
- 9443 ▪ Abatement of asbestos and lead-based paint.
- 9444 ▪ Filling basements with compacted clean fill.

9445 **B.3.3.2.2. Ineligible Structure Elevation Costs**

9446 Certain structure elevation activities and their associated costs are not eligible. Ineligible costs for

9447 structure elevation include but are not limited to the following:

- 9448 ▪ Elevating structures that were not in compliance with current NFIP standards at the time of
- 9449 construction.
- 9450 ▪ Costs related to building additions or auxiliary structures.⁴⁰¹
- 9451 ▪ Construction of new decks or porches.
- 9452 ▪ Any improvements for purely aesthetic reasons, unless required by the EHP compliance
- 9453 review.
- 9454 ▪ Costs to replace or repair utility service components that are undersized, inadequately
- 9455 designed or unsafe, unless required by code (except utility rooms noted as eligible costs).

⁴⁰¹ “Auxiliary structure” is a garage, storage or other space/structure not used as a living/dwelling space. Building additions are defined by code as “an extension or increase in the floor area, or height of a building or structure.”

9456 ▪ Exterior finish on the exposed foundation of the elevated building, unless required by EHP
9457 compliance review and or local code.

9458 ▪ Additional landscaping for ornamentation beyond what existed on the site prior to
9459 construction of the project (e.g., trees, shrubs).

9460 **B.3.4. STRUCTURE ELEVATION: SUBAWARD IMPLEMENTATION**

9461 Elevation project implementation entails:

9462 ▪ Pre-construction activities.

9463 ▪ Construction.

9464 ▪ Inspection of the completed foundation and engineering certification.

9465 ▪ Obtaining an elevation certificate and Certificate of Occupancy.

9466 ▪ A recordation of deed restriction requirements for property maintenance and flood insurance.

9467 Before the construction of the foundation begins, it is very important to conduct an inspection of the
9468 condition of the structure, survey the site and complete a soil inspection to ensure the proposed
9469 elevation project is feasible on the site.

9470 **B.3.4.1. Elevation Methods**

9471 Standard structure elevation methods are identified in FEMA P-312, *Homeowner’s Guide to*
9472 *Retrofitting*; FEMA P-347, *Above the Flood: Elevating your Floodprone House*; and the [Second-Story](#)
9473 [Conversion](#) fact sheet. In addition, FEMA has developed guidance for the design of appropriate
9474 foundations based on the requirements of the International Codes and other applicable standards.
9475 That guidance is provided in FEMA P-550 and is available for use with HMA structure elevation
9476 projects. FEMA also requires applicants and subapplicants to design all structure elevation projects
9477 in accordance with the latest published edition of ASCE 24.

9478 Available elevation methods, thoroughly described in FEMA P-312, FEMA P-347 and the *Second-*
9479 *Story Conversion* fact sheet include:

9480 ▪ Elevating the existing structure on piles, posts or piers.

9481 ▪ Elevating the structure on fill.

9482 ▪ Filling in the basement and replacing it with an elevated floor.

9483 ▪ Elevating by vertically extending the foundation walls of the home.

9484 Activities that result in the construction of new living space at or above the Base Flood Elevation are
9485 considered only when they are consistent with mitigation reconstruction requirements. Activities

9486 include structure elevations that abandon a lower enclosed area and add a second story above the
9487 Base Flood Elevation to an existing structure.

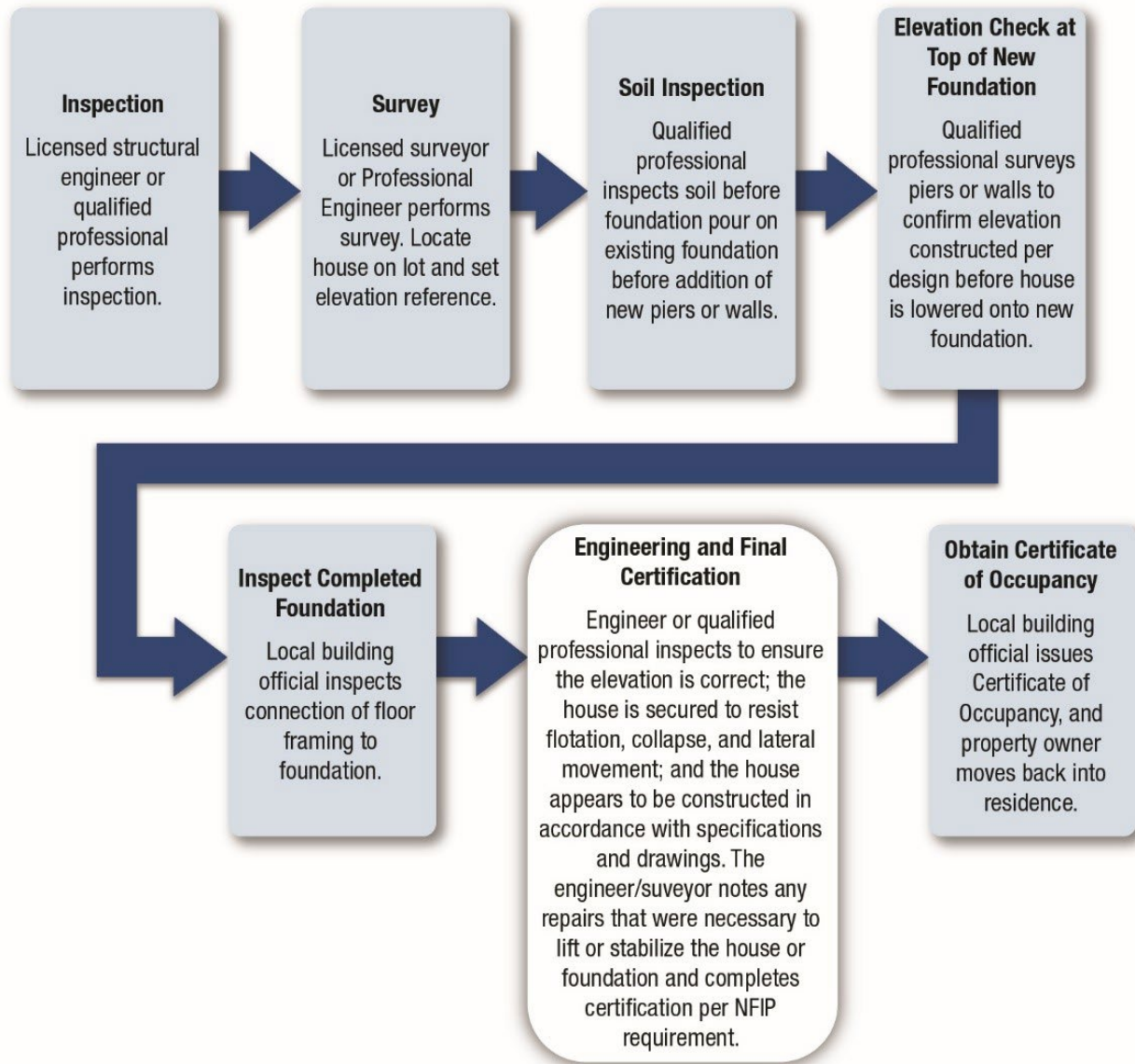
9488 The method that is selected for elevating a house depends on factors such as:

- 9489 ▪ Foundation type—the most common foundation types are:
 - 9490 ○ Crawl space on foundation walls.
 - 9491 ○ Slab-on-grade.
 - 9492 ○ Open type foundation—piles and posts or piers.
- 9493 ▪ Condition of the house.
- 9494 ▪ Applicable state and local building codes.
- 9495 ▪ Soil type and bearing capacity.
- 9496 ▪ Weight of the house and lateral forces on the house from water and other natural hazards,
9497 such as winds and earthquakes.
- 9498 ▪ Height of proposed elevation above the grade level.
- 9499 ▪ Number of additions to the original structure.

9500 Additional information can be found in the resources on FEMA’s [“Building Science”](#) webpage.

9501 **B.3.4.2. Survey and Inspection Considerations**

9502 FEMA encourages surveying and inspections throughout the construction process. Certifications of
9503 the surveys ensure the work has been performed in compliance with the structure-specific plans and
9504 specifications, applicable codes and standards, and minimum NFIP requirements. [Figure 13](#)
9505 identifies important inspection and survey considerations.



9506

9507

Figure 13. Inspection and Survey Considerations

9508 **B.3.4.3. Scope of Work Change**

9509 If the results of the inspections indicate the structure cannot be elevated, the subapplicant may
 9510 request a change in scope to substitute another structure. This option is only available if alternative
 9511 structures were identified in the original subapplication.

9512 **B.3.5. STRUCTURE ELEVATION: CLOSEOUT**

9513 Recipients and subrecipients must close out projects in a timely manner consistent with [Part 9](#).

9514 In addition to the typical HMA program closeout procedures, close out of structural elevation projects
 9515 generally includes:

- 9516 ▪ A Certificate of Occupancy and the final *Elevation Certificate* (FEMA Form 086-0-33) for each
9517 structure on the project to certify the structure is code compliant and was elevated to the
9518 required elevation. FEMA will use the latest published edition of ASCE 24 or its equivalent as
9519 the minimum design criteria.

- 9520 ▪ A copy of the recorded deed for each property, including structure elevation project deed
9521 requirements for property maintenance and flood insurance requirements.

- 9522 ▪ A signed *Acknowledgement of Conditions for Mitigation of Property in an SFHA with FEMA*
9523 *Grant Funds* form for each structure.

- 9524 ▪ A certification from a building official or licensed design professional verifying that the
9525 structure was designed and constructed to the minimum standard of the two most recently
9526 published editions of the International Codes, even in locations where no code has been
9527 adopted.

- 9528 ▪ Front, rear and side photographs of the final elevated structure(s), including the date of the
9529 photograph, property address, latitude/longitude to the nearest sixth decimal place and the
9530 source of the photograph.

- 9531 ▪ Verification of flood insurance policy for each structure.

- 9532 ▪ Update of the property site information and address in the respective HMA electronic system
9533 database for each structure indicating if each property was mitigated or withdrawn.

9534 **B.3.6. STRUCTURE ELEVATION: RESOURCES**

👤
Structure Elevation Resources

- 9536 ▪ FEMA BCA webpage: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>
- 9537 ▪ EHP Review job aids: [https://www.fema.gov/grants/guidance-tools/environmental-](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
9538 [historic/preparation-resources](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
- 9539 ▪ Elevation Certificate (FEMA Form 086-0-33):
9540 [https://www.fema.gov/sites/default/files/2020-07/fema_nfip_elevation-certificate-](https://www.fema.gov/sites/default/files/2020-07/fema_nfip_elevation-certificate-form_feb-2020.pdf)
9541 [form_feb-2020.pdf](https://www.fema.gov/sites/default/files/2020-07/fema_nfip_elevation-certificate-form_feb-2020.pdf)
- 9542 ▪ FEMA NFIP TB 5, Free-of-Obstruction Requirements:
9543 [https://www.fema.gov/sites/default/files/documents/fema_free-of-obstruction-technical-](https://www.fema.gov/sites/default/files/documents/fema_free-of-obstruction-technical-bulletin_2021052721.pdf)
9544 [bulletin_2021052721.pdf](https://www.fema.gov/sites/default/files/documents/fema_free-of-obstruction-technical-bulletin_2021052721.pdf)
- 9545 ▪ FEMA NFIP TB-9, *Design and Construction Guidance for Breakaway Walls Below Elevated*
9546 *Coastal Buildings*: [https://www.fema.gov/sites/default/files/documents/fema_nfip-](https://www.fema.gov/sites/default/files/documents/fema_nfip-technical-bulletin-9-09292021.pdf)
9547 [technical-bulletin-9-09292021.pdf](https://www.fema.gov/sites/default/files/documents/fema_nfip-technical-bulletin-9-09292021.pdf)

- 9548
- 9549
- 9550
- FEMA NFIP TB-1, *Openings in Foundation Walls and Walls of Enclosures*:
https://www.fema.gov/sites/default/files/documents/fema_flood-openings-technical-bulletin_20210607.pdf
- 9551
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- FEMA NFIP TB-10, *Ensuring That Structures Built on Fill In or Near Special Flood Hazard Areas Are Reasonably Safe From Flooding*:
https://www.fema.gov/sites/default/files/2020-07/tb10_ensuring_structures_built_on_fillin_near_special_flood_hazard_areas_reasonably_safe_flooding_01_.pdf
- 9556
- 9557
- 9558
- FEMA P-312, *Homeowner’s Guide to Retrofitting*:
https://www.fema.gov/sites/default/files/2020-07/fema_nfip_homeowners-guide-retrofitting_2014.pdf
- 9559
- 9560
- 9561
- Fact Sheet: *Second-Story Conversion – Elevation Project Design Considerations for Hazard Mitigation Assistance Applicants*: https://www.fema.gov/sites/default/files/2020-09/fema_second-story_conversion_elevation_fact_sheet_02-14-19.pdf
- 9562
- 9563
- FEMA P-347, *Above the Flood: Elevating Your Floodprone House*:
https://www.fema.gov/pdf/library/fema347_toc.pdf
- 9564
- 9565
- 9566
- FEMA P-550, *Recommended Residential Construction for Coastal Areas*:
https://www.fema.gov/sites/default/files/documents/fema_p550-recommended-residential-construction-coastal-areas.pdf
- 9567
- 9568
- ASCE 24 *Flood-Resistant Design and Construction*:
https://www.fema.gov/sites/default/files/2020-07/asce24-14_highlights_jan2015.pdf
- 9569
- 9570
- FEMA P-55, *Coastal Construction Manual Vol. 1*:
https://www.fema.gov/sites/default/files/2020-08/fema55_voli_combined.pdf
- 9571
- 9572
- FEMA P-55, *Coastal Construction Manual Vol. 2*: https://www.fema.gov/media-library-data/20130726-1510-20490-1986/fema55_volii_combined_rev.pdf
- 9573
- 9574
- 9575
- FEMA P-259, *Engineering Principles and Practices for Retrofitting Flood-Prone Residential Structures*: https://www.fema.gov/sites/default/files/2020-08/fema259_complete_rev.pdf
- 9576
- 9577
- FEMA P-499, *Home Builder’s Guide to Coastal Construction*:
https://www.fema.gov/sites/default/files/2020-08/fema499_2010_edition.pdf
- 9578
- 9579
- Additional Building Science Publications: <http://www.fema.gov/building-science-publications>

9580 **B.4. Stabilization**

9581 **B.4.1. STABILIZATION: OVERVIEW**

9582 Stabilization is a project type that reduces or prevents slope failure or ground movement, of a
 9583 relatively limited extent, that transports earthen debris downhill by sliding, rolling, falling or slumping.
 9584 Slope failures can involve rock falls and/or debris flow (a mixture of soil, rocks and vegetation) that
 9585 deposit material at the base of a slope or a slip-out where a portion of a facility fails and falls to a
 9586 descending slope. Slope failures can occur in either natural ground or human-made fill, such as a
 9587 highway embankment or canyon fill.

9588 **B.4.2. STABILIZATION: ELIGIBILITY**

9589 The following information highlights eligible activities under the stabilization project type. These
 9590 activities are not comprehensive, and FEMA encourages applicants and subapplicants to explore
 9591 innovative ways to stabilize soil. Soil stabilization projects are eligible under HMGP, HMGP Post Fire,
 9592 BRIC and FMA.

9593 **B.4.2.1. Stabilization Eligible Activities**

9594 Under HMA programs, proposed stabilization projects must meet program eligibility requirements,
 9595 including mitigation of potential infrastructure damage.

9596 Soil stabilization is an eligible activity that involves projects that reduce risk to structures or
 9597 infrastructure from erosion and landslides, including installing geosynthetics, surface and
 9598 subsurface drainage, stabilizing sod, and vegetative buffer strips; preserving mature vegetation;
 9599 decreasing slope angles; and stabilizing with riprap and other means of slope anchoring. These
 9600 projects must not duplicate the activities of other federal agencies.

9601 Soil stabilization can take place in environments ranging from shorelines and streambanks to
 9602 mountainsides and hillsides, and can be used to mitigate erosion, landslides and avalanches.
 9603 Stabilization mitigation techniques consist of two main categories: traditional “hard” techniques and
 9604 nature-based/bioengineered techniques.

9605 Examples of eligible stabilization activities are provided in [Table 23](#).

9606 **Table 23: Examples of Eligible Stabilization Activities**

Activity	Subactivity	HMGP	HMGP Post Fire	BRIC	FMA
	Mechanically stabilized earth	Yes	Yes	Yes	Yes
	Soldier pile walls	Yes	Yes	Yes	No

Activity	Subactivity	HMGP	HMGP Post Fire	BRIC	FMA
Traditional hard/gray and hybrid techniques	Gabion walls	Yes	Yes	Yes	Yes
	Crib walls and bin walls	Yes	Yes	Yes	Yes
Nature-based green technique Streambank stabilization	Fascines/stakes (e.g., live fascines, pole stakes and post plantings)	Yes	Yes	Yes	Yes
	Blankets/mats (e.g., erosion control blanket, live brush mattress, turf reinforcement mat, vegetated gabion mattress, coconut fiber rolls and toe stabilization/revetments)	Yes	Yes	Yes	Yes
	Stone-filled trenches (e.g., vegetated riprap, rootwad revetment, live siltation/tree revetment, trench fill revetment and longitudinal peak stone toe protections)	Yes	Yes	Yes	Yes
	Drainage-promoting measures (e.g., chimney drainage, slope drain and trench drain)	Yes	Yes	Yes	No
	Structural measures (e.g., geocellular containment system, live cribwalls, vegetated articulated concrete blocks, vegetated gabion basket and vegetated mechanically stabilized earth)	Yes	Yes	Yes	Yes
	Large woody debris	Yes	Yes	Yes	No
	Weirs and in-stream structures	Yes	Yes	Yes	No
	Bendway weir	Yes	Yes	Yes	No
	Diversion dike	Yes	Yes	Yes	No
	Engineered log jam	Yes	Yes	Yes	No
	Rock/cross vane	Yes	Yes	Yes	No
	Shoreline stabilization	Beach/dune stabilization (e.g., beach nourishment, dune nourishment and plant beach/dune grass)	Yes	Yes	Yes
Drainage (e.g., chimney drain, slope drain, trench drain and berm)		Yes	Yes	Yes	No

Activity	Subactivity	HMGP	HMGP Post Fire	BRIC	FMA
	Streambank regrading/stabilization (e.g., regrade bank, control runoff, install coir rolls and natural fiber blankets and plant native vegetation)	Yes	Yes	Yes	Yes
	Revetment (e.g., regrade slope, revetment and plant native vegetation)	Yes	Yes	Yes	Yes
	Marsh restoration (e.g., regrading fill, plant native vegetation, edging, sills, breakwater, reef balls, bulkhead, artificial beach, oyster bag/mat and thin layer placement)	Yes	Yes	Yes	Yes
Wildfire	Mulching	Yes	Yes	Yes	No
	Erosion control mats or blankets	Yes	Yes	Yes	No
	Log terraces	Yes	Yes	Yes	No
	Fiber rolls	Yes	Yes	Yes	No
	Hydroseeding	Yes	Yes	Yes	No
	Silt fences	Yes	Yes	Yes	No
Other	Excavation (e.g., removing material and replacing with fill, benching or terracing a slope and reshaping ground surface)	Yes	Yes	Yes	Yes
	Reinforcement (e.g., geosynthetics, toe buttress or berm, deep soil mixing and soil nailing)	Yes	Yes	Yes	Yes
	Drainage (e.g., interceptor trench, horizontal drains and check dams)	Yes	Yes	Yes	No

9607 **B.4.2.1.1. Traditional or Gray and Hybrid Techniques**

9608 Traditional measures to stabilize soils often involve the installation of retaining walls. Retaining walls
 9609 are relatively rigid structures that can be used to strengthen soil and increase resistance to sliding
 9610 forces in areas where space is limited, such as areas where rights-of-way are restricted. They can
 9611 also be used to create additional space (e.g., road shoulders or parking areas). Hybrid walls combine
 9612 wall types and may include both gray and green elements. Examples of hard components or hybrid
 9613 measures include:

- 9614 ▪ **Mechanically stabilized earth:** Mechanically stabilized earth walls are constructed using
9615 compacted granular soil fill and geotextiles placed in alternating layers to construct a
9616 steepened slope that then may have a wall facing applied.

- 9617 ▪ **Soldier pile walls:** Soldier pile walls use a system of steel piles driven at regular intervals
9618 (usually 6 to 12 feet) and horizontal members, called lagging, placed horizontally between
9619 the piles to retain the soil behind the planks. Soldier pile walls provide stability by resisting
9620 the lateral forces of the soil behind the wall.

- 9621 ▪ **Gabion walls:** A gabion is a wire cage filled with rocks, concrete pieces, gravel or bricks. A
9622 bastion is a gabion that is lined with a geotextile and filled with sand. Gabion walls provide
9623 stability by resisting lateral forces behind them. Because gabion walls typically are filled with
9624 rocks, they are freely draining and do not allow a buildup of water behind the wall.

- 9625 ▪ **Crib walls and bin walls:** A crib wall is a gravity wall system consisting of stacked members
9626 that are filled with soil or rock. Bin walls are similar to crib walls except interlocking bins are
9627 stacked on top of each other.

9628 **B.4.2.1.2. Nature-based green techniques/Bioengineered stabilization**

9629 Nature-based and bioengineered stabilization techniques use native vegetation and other suitable
9630 plant species with structural components to stabilize and reduce erosion to stabilize soil. These
9631 techniques can often be used in conjunction with hard or gray stabilization measures in hybrid
9632 approaches. The following sections highlight three nature-based/bioengineered stabilization eligible
9633 activities for streambank, shoreline and post-wildfire mitigation. These eligible activities do not
9634 represent an exhaustive list, but rather serve to highlight more common nature-based/bioengineered
9635 stabilization activities.

9636 **B.4.2.1.2.1. STREAMBANK STABILIZATION ELIGIBLE ACTIVITIES**

9637 Proposed bank stabilization projects must mitigate potential infrastructure damage to meet eligibility
9638 requirements.

9639 FEMA encourages project teams to coordinate with EHP or HMA staff to determine what data is
9640 needed to evaluate the project. The subapplicant should collect and review watershed data,
9641 hydrologic and hydraulic data, stream characteristics, soil and geotechnical data, fluvial geomorphic
9642 data, climatic and vegetative conditions, habitat characteristics (current and desired), and water
9643 quality and pertinent environmental data (current and desired). Important design considerations
9644 include site accessibility, channel grade, watershed flows, channel velocities, stream alignment,
9645 stream type/geometry, bed material and sediment load, and debris and maintenance needs.

9646 Bioengineering approaches provide a self-stabilizing, long-term solution for many streams and banks
9647 damaged by erosion resulting from weather-related factors, construction and wildfires. The
9648 underlying principle requires the application of an integrated watershed-based approach that uses
9649 sound engineering practices together with ecological principles to assess, design, construct and

9650 maintain living vegetative systems. Bioengineering can be used on streambanks that require
 9651 structural intervention to facilitate the growth of natural vegetation. Once the root system of the
 9652 vegetation is established, it provides additional stream and bank stability. Successful projects can
 9653 help repair damage caused by erosion and slope failures; protect or enhance already healthy,
 9654 functioning systems; and ensure the long-term sustainability of the impaired area. Measures may
 9655 include but are not limited to the following categories:

- 9656 ▪ **Fascines/stakes:** Cuttings placed perpendicular to the ground or in trenches to improve
 9657 slope and bank stability; project owners should work with appropriate local agencies to
 9658 identify which plants to use.
 - 9659 ○ **Live fascines:** Long branch cuttings bundled and placed in a shallow trench to stabilize
 9660 streambanks and slopes.
 - 9661 ○ **Pole stakes:** Cuttings from native species are embedded perpendicular to the ground in
 9662 rows.
 - 9663 ○ **Post plantings:** Large diameter cuttings (typically from a cottonwood or willow tree) are
 9664 planted perpendicular to the ground surface, often among riprap.
- 9665 ▪ **Blankets/mats:** Protective layer of fiber, live cuttings or synthetic material placed on slopes
 9666 for erosion protection.
 - 9667 ○ **Erosion control blanket:** Flexible fiber mats placed over a geosynthetic netting down a
 9668 slope.
 - 9669 ○ **Live brush mattress:** Thick blanket of live brushy willow cuttings and soils.
 - 9670 ○ **Turf reinforcement mat:** Rolled mat of nondegradable synthetic material that provides a
 9671 matrix to reinforce the root system of vegetation for erosion protection.
 - 9672 ○ **Vegetated gabion mattress:** Shallow rectangular containers 20 inches to 60 inches deep
 9673 made of welded wire mesh and filled with rock and substrate to support vegetation.
 - 9674 ○ **Coconut fiber rolls:** Manufactured, elongated cylindrical structures placed at the bottom
 9675 of streambanks to help prevent scour and erosion in streams with low to moderate
 9676 velocities (approximately 2.5 to 7 feet per second).
 - 9677 ○ **Toe stabilization/revetments:** Structures or material, such as riprap, placed at the base
 9678 of a slope to provide resistance against sliding material on a slope or embankment. In
 9679 streams, these materials also reduce energy from moving water to decrease the
 9680 likelihood of scour and erosion.
- 9681 ▪ **Stone-filled trenches:** Rock-filled trenches placed at the base of a stream bank capable of
 9682 supporting substrate for vegetation.

- 9683 ○ **Vegetated riprap:** A layer of stone and/or boulder armoring that is vegetated, optimally
9684 during construction, using pole planting, brush layering or live-staking techniques.
- 9685 ○ **Rootwad revetment:** Structures constructed from interlocking tree materials, primarily
9686 intended to resist erosive flows and usually used on the outer bends of streams.
- 9687 ○ **Live siltation/tree revetment:** A revegetation technique in which cut trees are anchored
9688 along the stream bank to secure the toe of the stream bank, trap sediments and create a
9689 fish rearing habitat.
- 9690 ○ **Trench fill revetment:** Constructed by excavating a trench along the top of the bank,
9691 placing stone riprap in the trench, and filling the trench with native soil capable of
9692 supporting vegetation.
- 9693 ○ **Longitudinal peak stone toe protection:** A row of well-graded stones is placed parallel to
9694 the bank along its toe/base to protect against erosion and scour. The top of the stone is
9695 a third to half the bank height and the cross section of the row is triangular. Live poles
9696 can be staked among the stones in lower flow velocity environments.
- 9697 ■ **Drainage-promoting measures:** Free-draining material placed on a slope or bank to intercept
9698 and control runoff and seepage to ensure long-term stability.
- 9699 ○ **Chimney drainage:** A subsurface drainage course placed between a natural slope and an
9700 earthen buttress fill or other retaining structure.
- 9701 ○ **Slope drain:** A drainage system used to collect and transport storm runoff down the face
9702 of a slope.
- 9703 ○ **Trench drain:** A drainage trench excavated parallel to and just behind the crest of a
9704 stream bank.
- 9705 ■ **Structural measures:** Large retaining structures used to stabilize banks and slopes.
- 9706 ○ **Geocellular containment system:** Flexible, three-dimensional, high-density polyethylene,
9707 honeycomb-shaped earth-retaining structures; can be expanded/backfilled with a variety
9708 of materials to mechanically stabilize banks and slopes when applied.
- 9709 ○ **Live cribwalls:** A gravity-retaining structure consisting of a hollow, box-like interlocking
9710 arrangement of structural beams filled with soil and live cuttings.
- 9711 ○ **Vegetated articulated concrete blocks:** An articulated concrete block system consisting of
9712 durable concrete blocks placed together to form a matrix overlay or armor layer while
9713 allowing vegetation to grow throughout the system.

- 9714 ○ **Vegetated gabion basket:** Rectangular containers fabricated from a heavily galvanized
9715 steel wire or triple twisted hexagonal mesh. Vegetation is incorporated into rock gabions
9716 by placing live branches on each consecutive layer between the rock-filled baskets.
- 9717 ○ **Vegetated mechanically stabilized earth:** Live cut branches interspersed between lifts of
9718 soil wrapped in natural fabric.
- 9719 ■ **Weirs and in-stream structures:** Structures that extend into the stream to direct flows away
9720 from banks to reduce erosion.
- 9721 ■ **Large woody debris:** Structures made from felled trees (can include rootwads) to deflect
9722 erosive flows and promote sediment deposit at the base of eroding banks.
- 9723 ■ **Bendway weir:** Discontinuous, redirective structures usually constructed of rock, designed to
9724 capture and then safely direct the flow through a meander bend; incorporating naturally
9725 occurring vegetation enhances aquatic and terrestrial ecosystems.
- 9726 ■ **Diversion dike:** A low berm (or ditch/berm combination) constructed along the crest/top of a
9727 streambank.
- 9728 ■ **Engineered log jam:** Structures made from felled trees may be used to deflect erosive flows
9729 and promote sediment deposition at the base of eroding banks.
- 9730 ■ **Rock/cross vane:** Structures angled into the flow to reduce local bank erosion by redirecting
9731 flow from the near bank to the center of the channel; vegetation planted on nearby
9732 streambanks provides long-term stability.

9733 **B.4.2.1.2.2. SHORELINE STABILIZATION ELIGIBLE ACTIVITIES**

9734 The subapplicant should, at a minimum, collect and review data and photographs to characterize the
9735 project site based on hydrodynamics, morphodynamics, sediment dynamics, anthropogenic factors,
9736 local ecology and water quality, and pertinent environmental data, as described below:

- 9737 ■ **Hydrodynamics** describe the movement of water at the site by processes such as waves,
9738 tides and wind-induced currents as well as hydrological processes such as rainfall, infiltration
9739 and runoff.
- 9740 ■ **Morphodynamics** describe the shape and movement of the land’s surface at the site over
9741 time. Site orientation, fetch, bathymetry (measurement of depth of water in oceans, seas or
9742 lakes), and topography as well as bluff erosion and shoreline change rates are all important
9743 morphodynamics data that should be considered.
- 9744 ■ **Sediment dynamics** describe the movement of sediment, caused by the interaction of wind,
9745 water and local topography with individual sediment particles. Important information
9746 includes soil composition, sediment grain size distribution and the geotechnical properties of
9747 soil at the site.

9748 ▪ **Anthropogenic factors** include all human-induced impacts at the site. Examples include
 9749 existing coastal structures (e.g., bulkheads, docks), commercial (e.g., dredging, shipping),
 9750 recreational (e.g., powerboating, fishing), and fisheries and agricultural (e.g., commercially
 9751 harvested oyster beds, aquaculture facilities).

9752 ▪ **Ecology** describes the naturally occurring and interdependent communities of plant, animal
 9753 and microbial species occurring at the site, and the conditions they depend on. Important
 9754 information includes common species of local grasses and seagrasses as well as listed
 9755 threatened and endangered species relying on coastal habitats in the area.

9756 Important design considerations include site accessibility, site grade and orientation, watershed
 9757 flows, longshore currents, fetch (length of open water over which wind from a given direction can
 9758 travel to create waves), bed material properties, sediment sources/sinks, debris and maintenance
 9759 needs, and environmental and historical preservation.

9760 Stabilization methods use living and nonliving plant materials together with natural and synthetic
 9761 construction materials to reduce coastal erosion, establish vegetation and stabilize shorelines.
 9762 Successful projects can help repair damage caused by erosion and slope failures; protect or
 9763 enhance already healthy, functioning systems; and ensure long-term sustainability of the impaired
 9764 shoreline and coastal habitat areas. Commonly used bioengineered shoreline stabilization measures
 9765 generally focus on reducing wave impacts, mitigating storm surge, minimizing erosion, improving
 9766 slope stability and/or creating or improving coastal habitat. Measures may include but are not limited
 9767 to the following categories:

9768 ▪ **Beach/dune stabilization:**

9769 ○ **Beach nourishment:** Sediment of compatible type (mean grain size and material) is
 9770 placed on the beach to widen it and add sediment to the shoreline system.

9771 ○ **Dune nourishment:** Sediment of compatible type (mean grain size and material) is used
 9772 to reinforce an eroded dune face or in some cases to create a new dune.

9773 ○ **Plant beach/dune grass:** Native, deep-rooted beach grasses are planted on the dune and
 9774 upper beach to stabilize added sediment and trap additional sediment.

9775 ▪ **Drainage:**

9776 ○ **Chimney drain:** A subsurface drainage course placed between a natural slope and an
 9777 earthen buttress fill or other retaining structure.

9778 ○ **Slope drain:** A drainage system used to collect and transport stormwater runoff down the
 9779 face of a slope.

9780 ○ **Trench drain:** A drain excavated parallel to and just behind the crest of a coastal bank.

- 9781 ○ **Berm:** An earthen mound placed at the top of a coastal bank to direct runoff away from
9782 the bank fence.
- 9783 ■ **Streambank regrading/stabilization:**
- 9784 ○ **Regrade bank:** Eroding bank face that is unstable and oversteepened is stabilized by
9785 reducing the slope. Placing fill at the bank toe and retreating the bank crest are two
9786 options.
- 9787 ○ **Control runoff:** Surface runoff is diverted away from the eroding bank face by creating a
9788 berm at the bank crest and/or by installing drywells/French drains to encourage
9789 infiltration.
- 9790 ○ **Install coir rolls and natural fiber blankets:** Blankets made of natural biodegradable fiber
9791 are rolled out onto the bank face to temporarily control erosion. Coir rolls, which are
9792 dense rolls anywhere from 6 inches to 12 inches in diameter and made of coconut
9793 husks, are placed parallel to the bank toe and up the toe face to provide protection from
9794 short-term erosion events such as storms. Native, deep-rooted vegetation is planted
9795 through the natural fiber components into the bank face.
- 9796 ○ **Plant native vegetation:** Over time, the vegetation will become established and stabilize
9797 the bank as the natural fiber components degrade.
- 9798 ■ **Revetment:**
- 9799 ○ **Regrade slope:** Flexible, three-dimensional, high-density polyethylene, honeycomb-
9800 shaped earth-retaining structures are installed; they can be expanded/backfilled with a
9801 variety of materials to mechanically stabilize surfaces.
- 9802 ○ **Revetment:** Sloped structure placed at the toe and/or face of a coastal bank to dissipate
9803 wave energy and reduce erosion; in coastal engineering these are usually made of riprap.
9804 Composed of natural materials but not inherently a bioengineering solution.
- 9805 ○ **Plant native vegetation:** Native vegetation planted on the slope above a revetment as
9806 well as within the spaces between rocks in a revetment's face can increase stability and
9807 create habitat.
- 9808 ■ **Marsh restoration:**
- 9809 ○ **Regrading fill:** Unstable slopes are brought to a lower grade; sediment appropriate for
9810 supporting marsh vegetation is introduced if it does not exist.
- 9811 ○ **Plant native vegetation:** Appropriate native marsh vegetation is planted along the future
9812 marsh platform. In areas of very low wave energy this may be all that is needed.

- 9813 ○ **Edging:** In areas of slightly higher wave energy, edging in the form of coir rolls and/or
9814 oyster shell bags can be used to protect the existing vegetated toe of the marsh.
- 9815 ○ **Sills:** Parallel to vegetated shoreline; reduces wave energy and prevents erosion. Suitable
9816 for most areas except high wave energy environments.
- 9817 ○ **Breakwater:** Offshore structures located parallel to the shore intended to break waves,
9818 reducing the force of wave action and encouraging sediment accretion. They are suitable
9819 for most areas and can be submerged or exposed. Where appropriate, they can be in the
9820 form of a living reef.
- 9821 ○ **Reef balls:** Reef balls are complex geometric structures that can be installed to serve as
9822 an alternative to a traditional breakwater in some environments. They create habitat for
9823 shellfish, fish and other marine animals while simultaneously providing protection to the
9824 coast by attenuating wave energy.
- 9825 ○ **Bulkhead:** Vertical wall parallel to the shoreline intended to hold soil in place. They are
9826 suitable for high-energy settings and sites with existing hard shoreline structures.
9827 Bulkheads are not a bioengineering solution but can sometimes be combined with
9828 bioengineering methods to reduce impacts on the local ecology and shoreline system.
- 9829 ○ **Artificial beach:** In some cases, a gravel and/or cobble beach may be constructed in front
9830 of a bulkhead to reduce direct wave impacts and reduce erosion in front of the hard
9831 structure.
- 9832 ○ **Oyster bag/mat:** Oyster bags/mats may be installed offshore of a bulkhead to create
9833 habitat and encourage colonization by native oysters.
- 9834 ○ **Plant native vegetation:** Native vegetation planted landward of a bulkhead can trap
9835 airborne sediment and reduce erosion in the case that a bulkhead is overtopped.

9836 **B.4.2.1.2.3. POST-WILDFIRE STABILIZATION ACTIVITIES**

9837 Soil stabilization activities post-wildfire (including activities such as flood diversion and reforestation)
9838 may be eligible under HMA programs. Landscape or soil stabilization, flood diversion and
9839 reforestation following a wildfire event are important because of the increased threat of soil erosion
9840 following the destruction of the plant material and litter layer on the ground. Reducing the risk of
9841 flood and erosion after a fire through the implementation of soil stabilization, flood diversion and
9842 reforestation efforts is important to protecting nearby communities.

9843 Numerous techniques can be used to control erosion and provide soil stabilization after a wildfire
9844 event. Short-term stabilization methods include:

- 9845 ▪ **Mulching:** Covering the area with a protective straw layer can prevent erosion. Mulch should
9846 be covered with plastic netting or adhered to the soil with a tacking agent to minimize loss of
9847 straw to adverse weather.

- 9848 ▪ **Erosion control mats or blankets:** Fibers, straw or other plant material that protects the soil
9849 from precipitation can be used on hillsides and along valleys.

- 9850 ▪ **Log terraces:** Dead trees can be placed on the contour, opposite the direction of the slope in
9851 an alternating fashion, preventing water from finding a direct path downslope and eroding
9852 soil.

- 9853 ▪ **Fiber rolls:** Fiber rolls are made from materials such as straw or coconut fiber and are rolled
9854 into a tube. They can be used as a temporary fix to control sediment and soil surface runoff
9855 and erosion and are particularly useful to protect against sedimentation of water sources
9856 near burn sites.

- 9857 ▪ **Hydroseeding:** A slurry of seed and mulch mixed with water and fertilizer can be planted to
9858 promote growth of native grasses. Grasses help reduce soil erosion because they have an
9859 extensive root system to hold soil in place.

- 9860 ▪ **Silt fences:** Woven wire and fabric filter cloth acts as a fence to trap sediment from runoff.

9861 Reforestation is a long-term stabilization activity that involves replanting trees and selecting
9862 seedlings to restore forest health and reduce erosion. The effectiveness of reforestation depends in
9863 part on the rate of forest establishment and appropriate maintenance accomplished during
9864 establishment to control invasive species.

9865 **B.4.2.1.3. Other Stabilization Activities**

9866 Other stabilization projects may be eligible for assistance under HMA programs. FEMA encourages
9867 applicants and subapplicants to explore projects not explicitly detailed in the HMA Guide. Some other
9868 stabilization activities include:

- 9869 ▪ **Excavation:** Excavation is used to remove material from the slope to decrease the forces that
9870 drive sliding.
 - 9871 ○ Generally, excavation is appropriate only for small slumps or near-surface failures.
 - 9872 ○ The excavator should be kept a safe distance from the edge of the slope so it does not
9873 impose additional loads at the top of the slope, which could decrease slope stability.
 - 9874 ○ The toe material at the bottom of the slope should not be removed.
 - 9875 ○ Measures may include:

- 9876 – Removing material from the top of the slope and replacing with lightweight fill to
9877 reduce driving forces.
- 9878 – Benching or terracing the slope by making stair-step cuts.
- 9879 – Reshaping the ground surface to reduce the slope angle.
- 9880 ▪ **Reinforcement:** The shear strength of soil, which is a combination of frictional forces and
9881 cohesion between particles, is what resists downward movement of soil along a slope.
9882 Increasing the shear strength of soil helps to improve its resistance to sliding. There are
9883 several common methods of strengthening soil to improve sliding resistance. Measures may
9884 include:
- 9885 ○ Use of geosynthetics to improve the strength of soil and rock.
- 9886 ○ Constructing a toe buttress or berm at the bottom of the slope.
- 9887 ○ Deep soil mixing, which involves mixing a chemical stabilizer such as cement and/or lime
9888 with soil in situ (i.e., in place) to improve soil strength.
- 9889 ○ Soil nailing, typically steel rods or bars installed into the slope at an angle and held in
9890 place by cement grout.
- 9891 ▪ **Drainage:** Water is a key element that contributes to the stability or instability of a slope for
9892 several reasons:
- 9893 ○ The weight of water adds weight to the slope, which increases the driving forces on the
9894 slope and can decrease stability.
- 9895 ○ Water can dissolve bonding agents that hold soil or sediment particles together, which
9896 reduces the cohesion between particles and can lead to decreased stability.
- 9897 ○ Water can act as a lubricant between an overlying well-drained soil such as sands and
9898 gravels and poorly drained soils such as clays and some silts. In this last situation, the
9899 water drains more quickly through the well-drained soil and accumulates along its
9900 interface with the poorly drained soil because water cannot penetrate the poorly drained
9901 soil as quickly.
- 9902 Improving drainage within a slope can help to improve slope stability. Drainage methods include:
- 9903 ▪ Install an interceptor trench, which is a drainage system installed near the top of a slope or
9904 above the top of a known slide area to collect and direct surface and subsurface water from
9905 within permeable soil layers away from the slope.

9906 ▪ Install horizontal drains, which are perforated pipes inserted into the slope at prescribed
 9907 elevations and spacings to lower the water table to the level of the lowest pipe, which
 9908 decreases the driving forces by decreasing the water content of the slope soils.

9909 ▪ Install check dams across a drainage ditch to slow the flow of water to reduce erosion.

9910 **B.4.2.2. Ineligible Activities**

9911 Project must be consistent with the criteria described in [Part 4](#). FEMA does not assist
 9912 engineering/geotechnical studies for the permanent restoration of landslides.

9913 **B.4.2.3. Duplication of Programs**

9914 Bioengineered solutions may be eligible activities under programs by other federal agencies, such as
 9915 the EPA, USACE and the Natural Resource Conservation Service. FEMA will not provide assistance for
 9916 activities for which it determines the more specific authority lies with another federal agency or
 9917 program. These other programs and authorities should be examined before applying for HMA. For
 9918 more information see [Part 4](#).

9919 **B.4.2.4. Cost-Effectiveness**

9920 Applicants and subapplicants must demonstrate that mitigation projects are cost-effective. Projects
 9921 must be consistent with [Part 5](#).

9922 Projects must meet cost-effectiveness requirements to qualify for FEMA assistance. Cost-
 9923 effectiveness is evaluated by FEMA using BCA; cost-effective projects have a BCR greater than 1.0.

9924 Stabilization projects that improve or restore the natural environment may be eligible for ecosystem
 9925 services benefits. For more information see [Part 5](#).

9926 **B.4.2.5. Feasibility and Effectiveness**

9927 Projects must be consistent with [Part 6](#).

9928 Mitigation projects assisted by HMA must be both feasible and effective at mitigating the risks of the
 9929 hazard(s) for which the project was designed. A project’s feasibility is demonstrated through
 9930 conformance with accepted engineering practices, established codes, standards, modeling
 9931 techniques or best practices. The approach should use sound engineering practices and ecological
 9932 principles to assess, design, construct and maintain living vegetative systems that are blended into
 9933 the shoreline and the supported coastal ecosystem.

9934 **B.4.2.5.1. Design Development for Shoreline Stabilization Projects**

9935 To meet all established objectives, a combination of bioengineering techniques should be
 9936 considered for a site-specific bioengineering project plan using the following selection criteria:

9937 ▪ **Hydrology and hydraulics:** The anticipated water surface elevations, wave and surge
 9938 characteristics, prevailing currents, fetch, ice impacts and related forces should be used to
 9939 determine the most appropriate type of stabilization structure (hard, bioengineered or a
 9940 combination of the two) and the location and extent of selected measures.

9941 ▪ **Coastal geomorphology:** Form and function of the shoreline and its relationship to the coast
 9942 and surrounding landscape should be studied to understand how the actions taken at the
 9943 project site will affect the adjacent properties as well as the shoreline system.

9944 ▪ **Geotechnical considerations:** The type of rock and soil that make up the shoreline and
 9945 surrounding area influence what measures are appropriate. Soil and geotechnical
 9946 deficiencies should be evaluated to focus selection of measures that can increase soil
 9947 erosion resistance and allow for the establishment of vegetation where feasible.

9948 **B.4.2.5.2. Design Development for Streambank Stabilization Projects**

9949 A combination of bioengineering techniques should be considered for a site-specific bioengineering
 9950 project plan using the following selection criteria:

9951 ▪ **Hydrology:** The movement and volume of the flow to and within the stream should be used to
 9952 determine the best type of stabilization structure (hard/bioengineered).

9953 ▪ **Hydraulics:** The anticipated water surface elevations, velocities and related forces should be
 9954 used to determine the location and extent of selected measures. Sudden changes in velocity
 9955 or shear stresses in areas such as abutments or culverts may necessitate the use of
 9956 traditional stabilization methods; whenever possible, projects should try to establish
 9957 vegetation around hardened measures to gradually transition to upland vegetated areas.

9958 ▪ **Fluvial geomorphology:** Understanding which portions of the stream channel are damaged
 9959 and what changes might occur to the stream channel in response to human-caused and
 9960 natural disturbances helps determine appropriate restoration approaches. These strategies
 9961 must consider the form and function of the stream channel and relationship to the stream
 9962 and surrounding landscape.

9963 ▪ **Geotechnical considerations:** The type of rock and soil that make up the stream channel and
 9964 surrounding area influence what measures are appropriate. Geotechnical deficiencies should
 9965 be evaluated to focus the selection of measures that can increase soil shear strength using
 9966 root systems if possible.

9967 **B.4.2.5.3. Design Development for Wildfire Stabilization Projects**

9968 A combination of bioengineering techniques should be considered for a site-specific bioengineering
 9969 project plan using the following selection criteria:

- 9970 ▪ **Geotechnical considerations:** The type of rock and soil of the affected area can influence
9971 which soil approaches are selected in the stabilization process. Different soil types and
9972 conditions affect infiltration rates, which can impact flooding and slope stability. Soils that
9973 are hydrophobic may need to be plowed or otherwise broken up to enable infiltration to
9974 occur, decreasing surface runoff.
- 9975 ▪ **Silviculture:** Long-term stabilization through reforestation is desirable to achieve objectives
9976 such as establishing the forest, improving air and water quality, enhancing wildlife habitat
9977 and increasing biodiversity. Typically, native species are selected for planting to help achieve
9978 these objectives while also preventing the establishment of nonnative invasive species.
9979 Selection of the appropriate species for planting, determining the appropriate spacing of
9980 trees and undertaking planting during the appropriate time of year for the selected species
9981 are important factors for achieving long-term stabilization.

9982 **B.4.2.5.4. Permitting and Regulations**

9983 It is important to address and comply with all federal, state and local regulations and obtain
9984 necessary permits after the completion of conceptual design. State and local law often runs parallel
9985 to or branches off from federal law; thus, federal, state and local reviews are often concurrent.
9986 Depending on the location, impacts, measures selected and material employed, various permits or
9987 certifications may be required before construction.

9988 In general, permits are required from federal, state and local levels. For award, FEMA requires
9989 discussions with permitting agencies early in the project development process—even in the
9990 conceptual stages—and keeping documentation. Early discussions will likely save time and effort at
9991 the project closeout.

9992 A list of pertinent regulations at the federal, state and local levels is included below:

- 9993 ▪ **Water quality permits:** Projects involving work within a water of the United States may require
9994 a 401 Water Quality Certification from state environmental agencies.⁴⁰² Projects with the
9995 potential to affect public drinking supplies through dewatering or other construction activities
9996 must contact the state environmental agency to identify regulatory requirements that may
9997 apply. Wherever applicable, projects proposing to discharge into surface water must comply
9998 with the permit requirements of the National Pollution Discharge Elimination System. Permits
9999 from USACE will also likely be required under section 10 of the Rivers and Harbors Act
10000 and/or section 404 of the Clean Water Act, and potentially permission will be required under
10001 section 14 of the Rivers and Harbors Act.⁴⁰³

⁴⁰² Section 401 of the Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500 (October 18, 1972), as amended

⁴⁰³ [33 U.S.C. § 408](#)

- 10002 ▪ **Scenic and historic preservation:** Permits or approvals may be required for projects that
10003 require earthmoving and/or demolition of a structure if the projects are within a certain
10004 distance from designated state wild, scenic or recreational, archaeological, and prehistoric or
10005 historical sites or structures.

- 10006 ▪ **Tidal wetland and coastal zone permits:** Special permit requirements may apply in tidal
10007 waters and ocean shorelines in some states. Permits are required for projects including
10008 engineering activity that affects dune fields, beaches or shoreline lands.

- 10009 ▪ **Endangered species regulations:** Wildlife, natural resources and fisheries departments
10010 should be consulted to ensure compliance with state threatened and endangered species
10011 regulations.

- 10012 ▪ **Water rights:** Each state regulates water rights within its jurisdiction. If a project diverts water
10013 or causes changes to a water course, approval or granting of water rights by the state may be
10014 required.

- 10015 ▪ **Floodplain management permits:** Floodplain management or construction permits may be
10016 required by the local floodplain administrator for projects occurring within federally identified
10017 special hazard areas (the 1-percent annual chance floodplain).

- 10018 ▪ **Local stream and wetland ordinances:** Many city or county planning departments have local
10019 ordinances pertaining to streams and wetlands. Depending on the nature of the project,
10020 several permits may be required.

- 10021 ▪ **Local water resources permits:** Local or regional irrigation and water districts are empowered
10022 to protect water resources in their jurisdiction; permits may be required for certain projects.

- 10023 ▪ **Other:** Various agencies, utilities and authorities should be consulted for projects that
10024 depend on specific activities and locations.

10025 [Table 24](#) outlines the function and efficiency of streambank stabilization measures.

10026 **Table 24: Function and Efficiency of Streambank Stabilization Measures**

Stabilization Measure	Slope Angle	Function				Material		
		In-stream	Erosion Control	Drainage	Flow Control	Natural Veg.	Geo Synthetic	Stone/Rock
Fascines/stakes								
Live fascines	Low to High	No	Yes	No	Yes	Yes	No	Yes
Pole stakes	Low to Moderate	No	Yes	No	Yes	Yes	No	Yes

	<i>Function</i>				<i>Material</i>			
Post plantings	Low to Moderate	No	Yes	No	Yes	Yes	No	Yes
Blankets/mats								
Erosion control Blanket	No	Yes	Yes	No	No	Yes	Yes	No
Live brush mattress	No	Yes	Yes	No	No	Yes	No	No
Turf reinforcement mat	No	Yes	Yes	No	No	No	Yes	No
Vegetated gabion mattress	No	Yes	Yes	No	No	No	No	Yes
Toe Stabilization/Revetments								
Coconut fiber rolls	Low to Moderate	Yes	Yes	No	No	No	Yes	No
Stone fill trenches	Low to Moderate	Yes	Yes	No	Yes	No	No	Yes
Vegetated riprap	Moderate	No	Yes	No	Yes	Yes	No	No
Rootwad revetment	Low to Moderate	Yes	Yes	No	Yes	Yes	No	No
Live siltation/tree revetment	Moderate to High	No	Yes	No	No	Yes	No	No
Trench fill revetment	Low to Moderate	No	Yes	No	No	No	No	Yes
Longitudinal peak stone toe revetment	Low to High	No	Yes	No	No	No	No	Yes

10027 **B.4.2.6. Environmental and Historic Preservation**

10028 All subapplications submitted to FEMA must meet the EHP criteria in [Part 4](#). All subapplications must
 10029 provide the information described in [Part 6](#) so that FEMA may perform the EHP review.

10030 **B.4.3. STABILIZATION: APPLICATION AND SUBMISSION INFORMATION**

10031 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
 10032 should have a scoping narrative in accordance with [Part 6](#). Project-specific criteria are highlighted
 10033 below.

10034 FEMA may request additional information after the subapplication has been submitted to ensure all
 10035 necessary information is received. However, all information required by the regulations and the HMA
 10036 Guide must be received before an assistance decision and award or final approval can be made.

10037 **B.4.3.1. Budget**

10038 All subapplications should include a line-item breakdown of all anticipated costs.

10039 Subapplicants may apply for subrecipient management costs to cover administrative costs.
 10040 Management costs must be included in the subapplication budget as a separate line item. More
 10041 information about the requirements for management cost requests can be found in [Part 13](#).

10042 **B.4.4. STABILIZATION: SUBAWARD IMPLEMENTATION**

10043 Project implementation includes site preparation, construction, planting, monitoring and aftercare.
 10044 For the bioengineering design to be successful, implementation must be closely supervised
 10045 throughout by someone familiar with the implementation of bioengineering projects. Continuity of the
 10046 interdisciplinary team involved in the design is highly recommended, and consulting with someone
 10047 who has implemented other bioengineering projects will help ensure the success of the project.

10048 **Streambank stabilization:** The optimum time to install bioengineered measures is usually
 10049 during seasons when stream flows are typically low and dormant cuttings have the highest
 10050 success rate for propagation. Scheduling the sequence of work is critical to project success.
 10051 Scheduling considerations include endangered species’ nesting seasons.

10052 **Shoreline stabilization:** Ideally, bioengineered measures should be installed in seasons with
 10053 low storm-wave-induced erosion, when dormant cuttings have the highest success rate for
 10054 propagation. Scheduling the sequence of work is critical to project success, such as
 10055 considering endangered species’ nesting seasons.

10056 **Wildfire stabilization:** Following a wildfire, there is increased vulnerability to secondary
 10057 threats, such as floods and mudslides. Slope-stabilizing erosion control practices and forest
 10058 regeneration can help mitigate floods and landslides. Short-term stabilization methods
 10059 ideally should be implemented as soon as possible after the fire to help control erosion.
 10060 Long-term reforestation methods should be undertaken during the appropriate planting
 10061 season for the native species or seeding method selected.

10062 **B.4.5. STABILIZATION: CLOSEOUT**

10063 Recipients and subrecipients must closeout projects in a timely manner consistent with [Part 9](#).

10064 In addition to the typical HMA program closeout process, closeout of stabilization projects includes
 10065 submitting an operations and maintenance plan to FEMA for review prior to project closeout. In the
 10066 operations and maintenance plan, the recipient must confirm the plan is consistent with the HMA
 10067 Guide.

10068 At a minimum, the operations and maintenance plan must include all the following information:

- 10069 ▪ Information demonstrating the completed stabilization project will be maintained to achieve
 10070 the proposed hazard mitigation.
- 10071 ▪ A description of the post-closeout maintenance activities that will be undertaken to maintain
 10072 the project area.
- 10073 ▪ The period of time the community is committing to maintain the area and/or project site,
 10074 which must be consistent with the project useful life in the BCA.
- 10075 ▪ The department and position type that will be responsible for maintaining the project after
 10076 the construction has ended.
- 10077 ▪ Estimated costs for annual maintenance of the project.
- 10078 ▪ The schedule for completion of the maintenance activities.

10079 **B.4.6. STABILIZATION: RESOURCES**



10080 **Stabilization Resources**

- 10081 ▪ FEMA BCA webpage: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>
- 10082 ▪ EHP review job aids: [https://www.fema.gov/grants/guidance-tools/environmental-](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
 10083 [historic/preparation-resources](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
- 10084 ▪ The National Integrated Drought Information System website; the U.S. Drought Portal:
 10085 <http://www.drought.gov/drought>
- 10086 ▪ U.S. Drought Monitor weekly map: <https://droughtmonitor.unl.edu/>
- 10087 ▪ National Aeronautics and Space Administration (NASA) Gravity Recovery and Climate
 10088 Experiment: https://www.nasa.gov/mission_pages/Grace/
- 10089 ▪ NOAA Climate.gov provides science and information for a climate-smart nation:
 10090 <https://www.climate.gov>

10091 **B.5. Flood Risk Reduction**

10092 **B.5.1. FLOOD RISK REDUCTION: OVERVIEW**

10093 Flood risk reduction projects are designed to lessen the frequency or depth of flood water. Flood risk
10094 reduction project types fall into two categories:

- 10095 ▪ Localized flood risk reduction measures.
- 10096 ▪ Non-localized flood risk reduction measures.

10097 This section defines localized and non-localized flood risk and discusses several common project
10098 types to address each type of flood risk. The project types are not exhaustive but rather reflect those
10099 that are most common to the HMA programs.

10100 **B.5.2. FLOOD RISK REDUCTION: LOCALIZED FLOOD RISK**

10101 Localized flood risk reduction measures are those actions or projects taken to lessen the frequency
10102 or severity of flooding and decrease predicted flood damage within an isolated or confined drainage
10103 or catchment area that is not hydraulically linked or connected to a larger basin.

10104 Eligible localized flood risk reduction efforts include measures that reduce flood losses for single
10105 structures or facilities, groups of structures, or whole neighborhoods within an isolated or confined
10106 drainage area that is not hydraulically linked to another area. Eligible localized flood risk reduction
10107 projects also include urban flooding measures. These projects include but are not limited to:

- 10108 ▪ Stormwater management projects, including the construction, installation or modification of
10109 culverts, drainage pipes, pumping stations, floodgates, bioswales, detention and retention
10110 basins, and other stormwater management facilities.
- 10111 ▪ Flood diversion and storage measures.
- 10112 ▪ Slope stabilization or grading to direct flood waters away from homes, schools, businesses,
10113 utilities or governmental facilities.
- 10114 ▪ Flood protection measures for water and sanitary sewer systems or other utility systems.
- 10115 ▪ Vegetation management for shoreline stabilization (coastal, riverine, riparian and other
10116 littoral zones).
- 10117 ▪ Flood protection and stabilization measures for roads and bridges.

10118 FEMA encourages innovative technologies and project types that mitigate and reduce the impact of
10119 flood losses. Localized flood risk reduction projects are eligible for assistance under HMGP, HMGP
10120 Post Fire, BRIC and FMA.

10121 **B.5.2.1. Stormwater Management**

10122 While there may be many different types of localized flood risk reduction projects, stormwater
 10123 management projects are some of the most common to the HMA programs. Stormwater
 10124 management is defined as efforts to reduce the impact of increased runoff that results from new
 10125 development in a watershed. Stormwater management also encompasses many aspects of water
 10126 quality and includes efforts to reduce erosion and the entry of sediment and pollutants into receiving
 10127 streams.

10128 The objective of this activity is to prevent future development from increasing flood hazards to
 10129 existing development, to protect existing hydrologic functions within the watershed, and to maintain
 10130 and improve water quality. Unmanaged stormwater runoff from new development and
 10131 redevelopment throughout a watershed increases flood hazards by causing more frequent flooding,
 10132 greater flood depths and longer-lasting floods. As forests, fields and farms are covered by
 10133 impermeable surfaces such as streets, rooftops and parking lots, more of the rain runs off, and at a
 10134 faster rate. When an area is urbanized, the rate and volume of runoff can increase fivefold or more.
 10135 Communities are affected by development that takes place upstream in their watershed, and the
 10136 community’s own development can have an impact on downstream communities. Communities are
 10137 encouraged to cooperate with adjacent communities to manage stormwater. Stormwater
 10138 management regulations regulate development on a case-by-case basis to ensure the peak flow and
 10139 volume of stormwater runoff from each site will be no greater than the runoff from the site before it
 10140 was developed or redeveloped.

10141 Stormwater management practices can be grouped loosely into the following categories:

- 10142 ▪ **Infiltration:** These approaches manage stormwater by infiltrating it into the ground. These
 10143 methods are considered pollutant-reducing. Some examples include porous pavement,
 10144 subsurface infiltration and bioinfiltration.
- 10145 ▪ **Slow release:** These approaches detain and slowly release stormwater over time. An example
 10146 is a detention/retention pond.
- 10147 ▪ **Pollutant-reducing:** These approaches incorporate pollutant-reducing practices. They may
 10148 include infiltration practices and some slow-release practices.
- 10149 ▪ **Vegetated:** These approaches use vegetation as a significant component within the storage
 10150 area. Examples include bioretention basins, ponds and wet basins, green roofs, and
 10151 vegetated media filters.
- 10152 ▪ **Nonvegetated:** These approaches do not have a significant vegetation component. They
 10153 include but are not limited to porous pavements, blue roofs, media filters, cisterns, and
 10154 subsurface storage and conveyance methods.

10155 **B.5.2.2. Flood Diversion and Storage**

10156 Flood diversion and storage projects are climate resilient mitigation actions. These projects involve
 10157 diverting floodwaters from a stream, river or other body of water into a wetland, floodplain, canal,
 10158 pipe or other conduit (e.g., tunnels, wells) and storing them in aboveground reservoirs, floodplains,
 10159 wetlands, green infrastructure elements or other storage facilities. Flood diversion and storage
 10160 projects can be used to retain water to allow infiltration to groundwater supplies. This allows for a
 10161 controlled way to mitigate flooding and enhance usable water supply to mitigate the effects of
 10162 drought. Flood diversion and storage projects can also help maintain healthy ecosystems.

10163 Depending on the scope, scale and location of potential sites, flood diversion and storage projects
 10164 can vary in size and complexity. Proper planning, siting, sizing and construction are required to
 10165 implement successful flood diversion and storage systems. In general, there are five different
 10166 categories of flood storage areas:

- 10167 ▪ **Online:** Both dry and wet weather flows pass through the flood storage area.
- 10168 ▪ **Offline:** Dry and first-flush wet weather flows pass through the flood storage area. Larger
 10169 flows bypass the facility.
- 10170 ▪ **Dry:** The flood storage system is kept essentially dry because of infiltration and
 10171 evapotranspiration.
- 10172 ▪ **Wet:** The flood storage area contains water under all flow conditions.
- 10173 ▪ **Wet/dry:** Part of the flood storage area contains water and part is dry during various flow
 10174 conditions.

10175 Many flood diversion and storage projects are currently eligible for HMA as flood risk reduction
 10176 activities. The HMA Guide focuses on flood diversion and storage projects implemented using green
 10177 infrastructure methods as much as possible to address drought mitigation and climate change
 10178 resilience in addition to reducing flood risk. Green infrastructure methods involve diverting the water
 10179 into appropriately sized bioretention or bioretention basins. Smaller projects can provide localized
 10180 flood reduction by channeling the diverted water into a bioswale, rain garden, stormwater tree trench
 10181 or smaller bioretention or bioretention basin.

10182 **B.5.3. FLOOD RISK REDUCTION: NON-LOCALIZED FLOOD RISK**

10183 Non-localized flood risk reduction measures are those actions or projects that lessen the frequency
 10184 or severity of flooding and decrease predicted flood damage within an area that is hydraulically
 10185 linked or connected to a drainage basin that is regional in scale. These projects reduce flood hazards
 10186 in areas larger than those of localized flood risk reduction projects and may include but are not
 10187 limited to:

- 10188 ▪ The construction, demolition or rehabilitation of dams and weirs.

10189 ▪ Construction or modification of dikes, levees, floodwalls, seawalls, groins, jetties,
10190 breakwaters and stabilized sand dunes.

10191 ▪ Large-scale channelization of a waterway.

10192 Non-localized flood risk reduction measures are eligible under HMGP, HMGP Post Fire and BRIC. For
10193 FMA, non-localized flood risk reduction projects such as dikes, levees, floodwalls, seawalls, groins,
10194 jetties, dams and large-scale waterway channelization projects are not eligible unless the
10195 administrator specifically determines in approving a mitigation plan that such activities are the most
10196 cost-effective mitigation activities for the National Flood Mitigation Fund.⁴⁰⁴

10197 For complex flood risk reduction projects, subapplicants are strongly encouraged to use project
10198 scoping/advance assistance or a phased project approach. See [Part 10](#) for more information.
10199 Examples of common project types are highlighted below. This is not an exhaustive list, and
10200 additional project types may be eligible.

10201 **B.5.3.1. Dams**

10202 Definitions of a dam vary among federal and state agencies based on regulatory criteria. The
10203 National Dam Safety Act of 2006⁴⁰⁵ authorizes the national dam safety program and defines the
10204 term “dam” as:

10205 (A) any artificial barrier that has the ability to impound water, wastewater, or any liquid-
10206 borne material, for the purpose of storage or control of water, that (i) is 25 feet or more in
10207 height from (I) the natural bed of the stream channel or watercourse measured at the
10208 downstream toe of the barrier; or (II) if the barrier is not across a stream channel or
10209 watercourse, from the lowest elevation of the outside limit of the barrier to the maximum
10210 water storage elevation; or (ii) has an impounding capacity for maximum storage elevation
10211 of 50 acre-feet or more; but

10212 (B) does not include (i) a levee; or (ii) a barrier described in subparagraph (A) that (I) is six
10213 feet or less in height regardless of storage capacity; or (II) has a storage capacity at the
10214 maximum water storage elevation that is 15 acre-feet or less regardless of height unless the
10215 barrier, because of the location of the barrier or another physical characteristic of the
10216 barrier, is likely to pose a significant threat to human life or property if the barrier fails (as
10217 determined by the Director).

10218 Dams are classified to identify their potential hazard. Hazard potential classification systems are
10219 numerous and vary within and between state and federal agencies. The hazard classifications are
10220 used by state dam safety regulators for several purposes, including for planning at the state and
10221

⁴⁰⁴ [44 CFR § 77.6\(c\)\(2\)\(vi\)](#).

⁴⁰⁵ Public Law 109-460 (December 22, 2006)

10222 local levels, assigning design requirements, and determining the frequency of operations and
 10223 maintenance activities and inspections.

10224 Section III of [FEMA 333](#): *Federal Guidelines for Dam Safety: Hazard Potential Classification System*
 10225 *for Dams* defines a system of low-, significant- and high-hazard potential classifications depending
 10226 on the potential for loss of life, economic loss and environmental damage resulting from a
 10227 hypothetical dam failure.

10228 Eligible activities related to dam safety may include:

- 10229 ▪ Dam breach/break analysis to determine the effect on the downstream floodplain in the
 10230 event of a dam break.
- 10231 ▪ Engineering studies to determine potential dam enhancements to increase reservoir
 10232 capacity/reduce downstream flooding or reduce upstream backwater flood conditions.
- 10233 ▪ Enhancements to dam control structures, the emergency spillway or other critical dam
 10234 infrastructure in order to mitigate existing natural hazard conditions.

10235 **B.5.3.2. Levee Systems**

10236 A levee system is a human-made barrier along a watercourse, designed and constructed in
 10237 accordance with sound engineering practices. Levee systems have the principal function of excluding
 10238 flood waters from a limited range of flood events from a portion of the floodplain. Levee systems can
 10239 consist of earthen embankments, floodwalls or a combination of both. Levee systems often include
 10240 other features such as gates, pipes and pump stations.

10241 A levee system cannot be constructed in open space that has been created as a result of an
 10242 acquisition project and subapplicants will be required to reject consideration of such use if they
 10243 accept FEMA assistance to convert a property to permanent open space. For more information about
 10244 required consultations, see Subsection B.1.3.8 Consultation Regarding Other Ongoing Federal
 10245 Activities.

10246 **B.5.3.3. Floodplain and Stream Restoration**

10247 Floodplain and stream restoration projects are used primarily to reduce flood risk and erosion by
 10248 providing stable reaches. They may also mitigate drought impacts. floodplain and stream restoration
 10249 projects restore and enhance the floodplain, stream channel and riparian ecosystem’s natural
 10250 function. They provide baseflow recharge, water supply augmentation, floodwater storage, terrestrial
 10251 and aquatic wildlife habitat, and recreation opportunities by restoring the site’s soil, hydrology and
 10252 vegetation conditions that mimic predevelopment channel flow and floodplain connectivity.

10253 Floodplain and stream restoration projects can be scaled as needed to fit the site conditions and
 10254 goals of the project. Typical goals and objectives include:

- 10255 ▪ Reduce peak velocities and stream bank erosion.

- 10256 ■ Reduce peak flood stages.
- 10257 ■ Protect bridge abutments, bridges, road crossings and other infrastructure.
- 10258 ■ Protect valuable land and property.
- 10259 ■ Increase or improve water supply and capacity.
- 10260 ■ Restore ecological habitats for plants and aquatic species such as fish and other wildlife.
- 10261 ■ Restore or improve water quality.

10262 floodplain and stream restoration projects readily lend themselves to nature-based solutions to
 10263 achieve the desired impact. Potential projects that can emphasize the role of nature-based solutions
 10264 to maximize the ecosystem service benefits in addition to risk reduction include:

- 10265 ■ **Floodplain setbacks:** Removing structures from the floodplain and restoring the channel to
 10266 its historical configuration. The stream is left to freely meander and flood its overbanks. This
 10267 may include acquiring at-risk structures for removal and establishing levee setbacks.
- 10268 ■ **Multistage channels:** Involves an upper channel section(s) to provide flood conveyance with a
 10269 natural low-flow channel(s) within it to provide habitat enhancement and improved sediment
 10270 transport capacity.
- 10271 ■ **Relief channels:** This technique typically involves restoring the channel to its original
 10272 configuration and constructing a high-flow channel or relief culvert to provide for additional
 10273 flood conveyance. The restored channel provides habitat benefits while the high-flow
 10274 channel can be designed to divert excess flows, providing wetland or lowland habitat or
 10275 recreational benefits.
- 10276 ■ **Addition of in-stream structures:** Flow-changing devices are a broad category of structures
 10277 that can be used to divert flows away from eroding banks. They are often used to shield
 10278 banks from eroding flows, build up the toe of the bank, and direct flows to create a stable
 10279 alignment.
- 10280 ■ **Bank vegetation and seeding:** Trees and shrubs can provide lowland habitat, channel
 10281 shading, soil and bank stabilization, and aesthetic benefits. The use of native vegetation is
 10282 strongly encouraged to support creation or restoration of habitat and to maintain natural
 10283 ecosystem conditions.

10284 FEMA encourages communities to incorporate methods to mitigate the impacts of climate change
 10285 into eligible HMA-assisted risk-reduction activities by providing guidance on mitigating flood and
 10286 drought conditions.

10287 **B.5.3.4. Aquifer Storage and Recovery**

10288 Aquifer storage and recovery projects serve primarily as a drought management tool, but they can
 10289 also be used to reduce flood risk, mitigate saltwater intrusion and restore aquifers that have been
 10290 subject to overdraft.

10291 The concept of aquifer storage and recovery is to:

10292 ▪ Capture water when there is an abundant supply such as during a rainy season or during
 10293 spring snow melts.

10294 ▪ Store the water in subsurface aquifers.

10295 ▪ Recover the water when needed. Storing water underground can help protect it from
 10296 pollutants, evaporation and weather events as well as maintain stream flow during periods of
 10297 low flow.

10298 There are two types of aquifers, confined and unconfined:

10299 ▪ A **confined aquifer** is a closed system that, for these projects, can only be recharged using an
 10300 injection well. The project design includes a “mixing zone,” which is created between the
 10301 injected water and native groundwater to ensure variations in water quality are managed
 10302 safely and effectively.

10303 ▪ An **unconfined aquifer** can be recharged either by using an injection well or by allowing
 10304 surface water to infiltrate and seep into the aquifer. Through infiltration, the surface water
 10305 helps replenish groundwater supplies; the surface water mixes with native groundwater and
 10306 slowly flows through the aquifer. The appropriate method of recharge, source and treatment
 10307 of water added to the aquifer is based on specific site conditions and may include drinking
 10308 water, raw and/or partially treated surface water and, infrequently, raw groundwater or
 10309 reclaimed water. Communities can recover the stored water from the aquifer by using a well
 10310 and use the water as a fresh water supply.

10311 Aquifer storage and recovery projects provide several advantages as a method to increase water
 10312 supply for drought mitigation:

10313 ▪ Because aquifer storage and recovery is a subsurface storage technology, it is more resilient
 10314 and protected than the alternative and more traditional storage technologies such as
 10315 reservoirs or surface impoundments.

10316 ▪ The stored water in an aquifer storage and recovery system is protected from evaporation
 10317 and extreme weather events.

10318 ▪ Unlike reservoirs or other surface storage, there is no potential for levee failure and
 10319 downstream flooding.

- 10320 ▪ Aquifer storage and recovery can also protect freshwater supplies along coastal areas as a
10321 barrier or protection for saltwater intrusion driven by sea level rise.

10322 **B.5.3.4.1. Appropriate Site Selection**

10323 Appropriate site selection and an aquifer’s availability to a community are key items to evaluate
10324 when considering an aquifer storage and recovery project for flood risk reduction and/or drought
10325 mitigation. Appropriate siting of the project and the specific site conditions will impact the project
10326 design, source of water for recharge, method of injecting or infiltrating the water, and efficiencies in
10327 recovering the water. Advances in hydrogeologic assessment techniques have made it easier to
10328 ensure proper selection of the project site and water storage zones in the aquifer.

10329 **B.5.3.4.2. Contaminants to the Underground Water Supply**

10330 Another challenge to address during the project identification and planning phase is identifying
10331 potential contaminants to the underground water supply. The community should have a plan for
10332 managing potential leaching or contamination.

10333 The project application must address all potential impacts to environmental resources, including
10334 water quality, and provide the information necessary for FEMA to ensure compliance with
10335 environmental requirements. FEMA recommends that communities consult with technical experts in
10336 developing an aquifer storage and recovery project to ensure the project is in an appropriate site and
10337 necessary methods and measures are in place to preserve water quality standards.

10338 **B.5.4. FLOOD RISK REDUCTION: ELIGIBILITY**

10339 **B.5.4.1. Eligible Activities and Costs**

10340 The following sections highlight eligible activities and costs for both localized and nonlocalized flood
10341 risk reduction measures.

10342 **B.5.4.1.1. Localized Flood Risk Reduction Activities**

10343 Localized flood risk reduction projects are considered minor projects and are eligible for assistance
10344 under HMGP, HMGP Post Fire, BRIC and FMA.

10345 Eligible minor physical mitigation efforts include measures that reduce flood losses for single
10346 structures or facilities, groups of structures or whole neighborhoods.

10347 **B.5.4.1.2. Nonlocalized Flood Risk Reduction Activities**

10348 Any nonlocalized flood risk reduction activities—including long-term flood hazard mitigation measures
10349 such as major flood risk reduction projects—that are cost-effective, feasible and designed to
10350 substantially reduce the risk of future damage and loss of life from flooding are eligible for
10351 consideration under HMGP, HMGP Post Fire and BRIC.

10352 For FMA, nonlocalized flood risk reduction projects such as dikes, levees, floodwalls, seawalls,
 10353 groins, jetties, dams and large-scale waterway channelization projects are not eligible unless the
 10354 administrator specifically determines in approving a mitigation plan that such activities are the most
 10355 cost-effective mitigation activities for the National Flood Mitigation Fund.⁴⁰⁶

10356 Section 1210(b) of the DRRRA creates an exception for HMGP to the prohibition under HMA that
 10357 FEMA will not provide financial assistance for activities FEMA has determined another federal agency
 10358 has more specific authority to conduct.⁴⁰⁷ Specifically, section 1210(b) of the DRRRA provides that
 10359 FEMA may use HMGP assistance to fund activities authorized for the construction of federally
 10360 authorized water resources development projects that would normally fall under the authority of
 10361 USACE, as long as those activities are also eligible under HMGP. For more information, see
 10362 Subsection B.5.4.3.1 USACE Projects and HMGP.

10363 **B.5.4.1.3. Eligible Costs**

10364 The costs necessary to design and construct HMA flood risk reduction projects in accordance with
 10365 the latest edition of ASCE 24 are eligible costs.

10366 These costs may include:

- 10367 ▪ Professional services necessary to design, manage and implement the project.
- 10368 ▪ Data analyses/investigations directly related to the mitigation project (including geotechnical
 10369 investigations, engineering reports and hydraulic analyses).
- 10370 ▪ Project planning and design activities, including construction verification.
- 10371 ▪ Site preparation, building materials and construction.
- 10372 ▪ Structural and conveyance systems capable of supporting flood loads.
- 10373 ▪ Other flood-resistant components that meet feasibility and regulatory requirements.
- 10374 ▪ Measures to avoid or treat adverse effects to historical properties and cultural resources.
- 10375 ▪ Costs related to complying with local utility requirements.

10376 **B.5.4.2. Ineligible Activities and Costs**

10377 Flood risk reduction projects that address, without an increase in the level of protection, the
 10378 operation, deferred or future maintenance, rehabilitation, restoration, repair or replacement of
 10379 existing structures, facilities or infrastructure (e.g., dredging, debris removal, replacement of

⁴⁰⁶ Please note that while regulatory language at [44 CFR § 77.6\(c\)\(2\)\(vi\)](#) refers to the National Flood Mtigation Fund, the funding for FMA may come from the National Flood Insurance Fund.

⁴⁰⁷ Public Law 115-254 (October 5, 2018)

10380 obsolete stormwater systems or bridges, and maintenance/rehabilitation of facilities, including dams
 10381 and other flood risk reduction structures) are not eligible.

10382 A general list of ineligible activities is included in [Part 4](#).

10383 In addition, ineligible costs associated with flood risk reduction projects include but are not limited
 10384 to:

- 10385 ▪ Design costs that were assisted under a previous HMA award such as project
 10386 scoping/advance assistance.
- 10387 ▪ General geotechnical or hydraulic studies not specifically related to the project site of the
 10388 proposed mitigation activity, although engineering costs associated with the design
 10389 (hydrologic and hydraulic calculations) and benefit cost are acceptable.
- 10390 ▪ Flood risk reduction projects related to the repair or replacement of dams and other flood
 10391 risk reduction structures and repair of dams for the purpose of regular prescheduled or
 10392 damage-induced maintenance.
- 10393 ▪ Project components not consistent with FEMA-approved performance criteria.
- 10394 ▪ Conditional Letters of Map Revisions/Letters of Map Revisions associated with the project.

10395 Nonlocalized flood risk reduction projects are generally not eligible for FMA only, unless the
 10396 Administrator specifically determines in approving a mitigation plan that such activities are the most
 10397 cost-effective mitigation activities for the National Flood Mitigation Fund.⁴⁰⁸

10398 **B.5.4.3. Duplication of Programs**

10399 Federal law and FEMA HMA regulations prohibit duplication of programs unless, in a post-disaster
 10400 situation, there is an extraordinary threat to lives, public health or safety, or improved property.⁴⁰⁹

10401 Generally, no duplication of programs is presented by FEMA performing property acquisition for open
 10402 space, elevation or localized flood risk reduction measures within a USACE or Natural Resource
 10403 Conservation Service flood risk reduction project or study area. However, FEMA regulations require
 10404 subrecipients to coordinate with USACE to ensure that no levee projects are planned in areas
 10405 proposed for HMA property acquisition for open space activities.⁴¹⁰

10406 FEMA may not use HMA to mitigate a portion of a structure/facility owned or operated by another
 10407 federal agency. However, if the structure/facility is only regulated by another federal agency for a
 10408 purpose other than flood risk reduction, mitigation of the structure is still eligible for consideration

⁴⁰⁸ [44 CFR § 77.6\(c\)\(2\)\(vi\)](#)

⁴⁰⁹ [44 CFR § 206.434\(f\)](#)

⁴¹⁰ [44 CFR § 80.13\(b\)\(1\)](#)

10409 under HMA programs. For example, dams regulated by the EPA for water quality may be eligible for
 10410 HMGP and BRIC flood protection improvements.

10411 FEMA may not assist a project in an area if a statute states that another federal agency has
 10412 exclusive jurisdiction to construct flood risk reduction structures in that specific area of the U.S.

10413 FEMA cannot provide assistance for activities for which it determines the more specific authority lies
 10414 with another federal agency or program.

10415 For certain nonlocalized flood risk reduction projects, FEMA’s authority to assist the project may
 10416 overlap with USACE’s or the Natural Resource Conservation Service’s authority to fund a similar
 10417 project. To avoid a duplication of programs concerning a nonlocalized flood risk reduction project,
 10418 recipients and subrecipients should consult their local USACE or Natural Resource Conservation
 10419 Service office prior to developing an HMA application for the project (for additional information
 10420 regarding USACE coordination for HMGP projects, see Subsection B.5.4.3.1 USACE Projects and
 10421 HMGP). In general, duplication of programs should be evaluated at the project and site levels.

10422 The following represent the most common duplication of programs situations with respect to
 10423 nonlocalized flood risk reduction projects:

10424 ▪ If the USACE or Natural Resource Conservation Service is authorized to complete a specific
 10425 structural flood risk reduction project, FEMA may not assist a structural flood risk reduction
 10426 project of a similar nature in the area identified in the USACE or Natural Resource
 10427 Conservation Service project plan. A duplication of programs exists regardless of whether
 10428 assistance has been appropriated for the project.

10429 ▪ If the USACE or Natural Resource Conservation Service is authorized to perform a flood risk
 10430 reduction study with the goal of exploring options for structural flood protection systems in a
 10431 specified area, FEMA generally may not provide HMA for projects of a similar nature in the
 10432 same area. When the other federal agency has completed the study and selected a project
 10433 alternative—as indicated by a public record of decision—the study no longer presents a
 10434 duplication of programs. At that point, generally only the selected project elements indicated
 10435 in the public record of decision represent a duplication of programs.

10436 **B.5.4.3.1. USACE Projects and HMGP**

10437 Section 1210(b) of the DRRRA⁴¹¹ creates an exception for HMGP to the prohibition under HMA that
 10438 FEMA will not provide financial assistance for activities the agency has determined another federal
 10439 agency has more specific authority to conduct. Specifically, section 1210(b) of DRRRA provides that
 10440 FEMA may use HMGP assistance to fund the construction of federally authorized water resources
 10441 development projects that would normally fall under the primary authority of USACE, as long as those
 10442 activities are also eligible under HMGP. These include smaller projects that Congress has granted

⁴¹¹ Public Law 115-254 (October 5, 2018)

10443 USACE continuing authority to construct, such as under section 205 of the Flood Control Act of 1948,
10444 section 103 of the River and Harbor Act of 1962, and other similar flood control acts, as well as
10445 larger projects that Congress has specifically authorized for construction (such as in the Water
10446 Resources Development Acts, which are periodically reauthorized).⁴¹² These projects can address a
10447 variety of needs, including structural and nonstructural flood risk reduction, coastal storm risk
10448 reduction and other water resources development purposes.

10449 HMGP recipients may choose to prioritize and submit risk reduction applications for federally
10450 authorized water resources development projects normally under the primary purview of USACE.
10451 FEMA will contact the respective USACE District Office to identify the HMGP project potentially
10452 qualifying under USACE’s various statutory and program authorities. Once identified for HMGP
10453 assistance, these projects require coordination with USACE (through FEMA) and they may be subject
10454 to certain conditions such as [section 408 permits](#) and USACE standards, if applicable.

10455 HMGP provides up to 75 percent federal cost share with a 25 percent non-federal cost share
10456 requirement. FEMA’s federal cost share must be applied toward the federal share of the construction
10457 project and the non-federal cost share applied to the non-federal share of the construction project.
10458 HMGP funding may not exceed the total federal share for such project.

10459 This provision does not affect:

- 10460 1. The cost-share requirement of a mitigation measure under HMGP.
10461 2. The eligibility criteria of the mitigation measure under HMGP.
10462 3. The cost share requirement for a federally authorized water resources development project.
10463 4. The responsibilities of a non-federal interest with respect to the federally authorized water
10464 resources development project, including those related to the provision of lands, easements,
10465 rights-of-way, relocation and disposal areas.

10466 Once HMGP assistance is applied to the construction of the federally authorized water resources
10467 development project, no further federal assistance shall be provided for the project’s construction.
10468 This prohibition is an important consideration when choosing to apply for HMGP assistance.
10469 However, the prohibition does not apply to subsequent modifications and repairs, which may be
10470 funded and implemented by USACE.

10471 **B.5.4.4. Cost-Effectiveness**

10472 Applicants and subapplicants must demonstrate that mitigation projects are cost-effective. Projects
10473 must be consistent with [Part 5](#).

⁴¹² Public Law Chapter 771, Title II, § 205, 62 U.S. Statute at Large 1175 (June 30, 1948), as amended; [33 U.S.C. § 701s](#); Public Law 87-874 (October 23, 1962), as amended; [33 U.S.C. § 426g](#); Division AA of Public Law 116-260 (December 27, 2020)

10474 While the Office of Management and Budget (OMB) [Circular A-94: Guidelines and Discount Rates for](#)
10475 [Benefit-Cost Analysis of Federal Programs](#) describes an exemption for water resources projects over
10476 \$10 million (see the White House Council on Environmental Quality's Updated [Principles,](#)
10477 [Requirements and Guidelines for Water and Land Related Resources Implementation Studies](#)
10478 [PR&G] [December 2014]) the cost-effectiveness requirement in the HMA program authorizing
10479 statutes must be met. The cost-effectiveness determination should be supplemented by
10480 consideration of the PR&G criteria if applicable. Water resources projects may include aquifer
10481 recovery and storage, flood diversion and storage, and floodplain and stream restoration.

10482 **B.5.4.4.1. Aquifer Storage and Recovery Cost-Effectiveness**

10483 The primary benefit of an aquifer storage and recovery project is to enhance or increase water supply
10484 for drought mitigation by storing excess seasonal flood flows. The stored water can be pumped out of
10485 the aquifer (recovered), treated and used as a freshwater supply when additional water supply is
10486 needed, such as during periods of drought. To be used as a benefit for FEMA's BCA Toolkit, this
10487 water must be used primarily for services to the community and not for agricultural benefit, as the
10488 primary purpose of FEMA's hazard mitigation programs is to protect life, buildings and infrastructure.

10489 Communities may use aquifers for annual water resource management or longer-term water supply
10490 for more extreme needs. For example, they can recover only a portion of the stored water for use
10491 during high-demand times or seasonal dry periods and preserve a significant quantity of water in the
10492 aquifer for use during a drought. Aquifer storage and recovery systems can take advantage of the
10493 flexibility of using multiple types of source water and be designed and operated to help mitigate the
10494 effects of increased demand and drought in various communities with differing water resources.

10495 At a minimum, the project application must identify the increased water supply capacity the aquifer
10496 storage and recovery project would provide in relation to the population that will be supported in a
10497 drought and during the project's useful life. A recurrence interval for drought periods needs to be
10498 identified to use the BCA Toolkit.

10499 Estimating the probability of a drought can be difficult because of historical data gaps and variance
10500 in annual weather patterns/precipitation. There is not currently a single methodology to establish a
10501 recurrence interval for drought. Rather, FEMA encourages communities to use the best available
10502 data to document a recurrence interval.

10503 An aquifer storage and recovery project may be designed in a way that also provides flood risk
10504 reduction. If a flood mitigation component can be demonstrated, the methodologies in the current
10505 BCA Toolkit can be used to evaluate the cost-effectiveness of the overall project. An aquifer storage
10506 and recovery project may provide additional benefits if the applicant can demonstrate a reduction in
10507 subsidence and reduce structural damage to homes and properties in the vicinity.

10508 Aquifer storage and recovery projects are likely to be subject to water rights.

10509 **B.5.4.4.2. Floodplain and Stream Restoration and Floodwater Diversion and Storage Cost-**
 10510 **Effectiveness**

10511 Floodplain and stream restoration and floodwater storage and diversion projects can provide flood
 10512 risk reduction benefits that can be calculated using the BCA Toolkit. In addition, there are drought
 10513 mitigation and ecosystem services benefits that may also be considered.

10514 For more information, see [Part 5](#)Part 5, [Part 5.C.1.1.10 Ecosystem Service Benefits](#).

10515 If the subapplicant wants to include benefits from drought mitigation, the project application must
 10516 identify the increased water supply capacity the floodplain and stream restoration or floodwater
 10517 storage and diversion project would provide in relation to the population that will be supported in a
 10518 drought and during the project’s useful life.

10519 FEMA encourages communities to use the best available data to document a recurrence interval.

10520 Floodplain and stream restoration or floodwater storage and diversion projects that result in new or
 10521 restored wetlands; estuaries; or riparian, green or open space may consider the total annual benefits
 10522 for these categories in the cost-effectiveness evaluation. For these benefits, it would be necessary to
 10523 quantify the total restored ecosystem area (in acres or square feet), define the land use type,
 10524 quantify the additional water supply provided by the project in relation to the population that will be
 10525 supported in a drought, and identify the project’s useful life.

10526 **B.5.4.5. Feasibility and Effectiveness**

10527 Projects must be consistent with [Part 3](#). Mitigation projects assisted by HMA must be both feasible
 10528 and effective at mitigating the risks of the hazard(s) for which the project was designed. A project’s
 10529 feasibility is demonstrated through conformance with accepted engineering practices, established
 10530 codes, standards, modeling techniques and best practices.

10531 FEMA requires that certain HMA flood mitigation projects be designed and constructed in
 10532 conformance with the design criteria of the latest published edition of ASCE 24 as a minimum
 10533 standard for structures that are subject to building code requirements and that are located, in whole
 10534 or in part, in flood hazard areas. Other infrastructure types must be designed in accordance with the
 10535 codes and standards that govern the design and construction of the type of infrastructure.

10536 FEMA will consider a project application that uses ASCE 24 (or other codes and standards applicable
 10537 to the type of infrastructure) as consistent with HMA program engineering feasibility and
 10538 effectiveness requirements. Project applications that do not use ASCE 24 or the infrastructure
 10539 equivalent must submit documentation to demonstrate the project meets the engineering feasibility
 10540 and effectiveness requirement. At closeout, the subrecipient will have to provide certification from
 10541 the design professional that the design standards have been addressed.

10542 Some water use projects are subject to water rights laws, which vary by jurisdiction. In the western
 10543 U.S., the process of obtaining water rights may take several years. These issues should be addressed

10544 and, where possible, water rights should be obtained prior to application submission to prevent
 10545 delays.

10546 **B.5.4.6. Environmental and Historic Preservation**

10547 All subapplications submitted to FEMA must meet the EHP criteria in [Part 4](#). All subapplications must
 10548 provide the information described in [Part 6](#) so that FEMA may perform the EHP review.

10549 FEMA, in consultation with appropriate federal and state agencies, will use the information provided
 10550 in the application to ensure compliance with EHP requirements. This may include demonstrating
 10551 methods to incorporate public participation in the review process and/or mitigate any EHP impacts
 10552 resulting from the mitigation action.

10553 **B.5.4.6.1. Floodplain and Stream Restoration Environmental and Historic Preservation**
 10554 **Considerations**

10555 The scope of the floodplain and stream restoration project and the presence of potentially sensitive
 10556 environmental and cultural resources may impact the level of complexity of the EHP review. A
 10557 floodplain restoration project with a smaller scope involving the removal of at-risk structures and
 10558 planting native vegetation for bank stabilization may not require an EHP review as complex as a
 10559 project with a larger scope.

10560 **B.5.4.6.2. Aquifer Storage and Recovery Environmental and Historic Preservation Considerations**

10561 Project applications must include the necessary data and information for FEMA to conduct the
 10562 appropriate EHP review. Because of the underground storage nature of aquifer storage and recovery
 10563 projects, the project application should address issues and methods to monitor and protect the
 10564 stored water from potential contaminants. These issues and methods should include consideration
 10565 of the impacts, if any, of the injected water on native water quality and potential sources of
 10566 contamination from the injected water or leaching from the aquifer walls into the underground water
 10567 supply. FEMA, in consultation with appropriate federal and state agencies, uses the information
 10568 provided in the application to ensure compliance with EHP requirements.

10569 Aquifer storage and recovery projects also need to comply with the [EPA's Underground Injection](#)
 10570 [Control program](#), which regulates injection well operations to prevent the contamination of
 10571 underground sources of drinking water. Therefore, FEMA determines whether all the requirements of
 10572 the Underground Injection Control program are satisfied when considering aquifer storage and
 10573 recovery projects for HMA.

10574 **B.5.4.6.3. Floodwater Diversion and Storage Environmental and Historic Preservation**
 10575 **Considerations**

10576 The size and scale of the floodwater storage and diversion project and the presence of potentially
 10577 sensitive environmental or cultural resources may impact the level of complexity of the EHP review.
 10578 Neighborhood-scale projects in urban areas may not require as complex an EHP review as a larger-
 10579 scale project impacting a floodplain. Projects larger than a neighborhood scale are more likely to

10580 affect wetlands, coastal zones, cultural resources or habitat for plants and wildlife. These issues
 10581 need to be carefully evaluated during the design and planning of the project; a hydrologic and
 10582 hydraulic analysis must be included as a part of the application package. In particular, the impacts
 10583 on downstream flow patterns need to be considered to evaluate the effects on land use, the SFHAs,
 10584 stream functions, stream habitat, and erosion or sedimentation rates.

10585 **B.5.5. FLOOD RISK REDUCTION: APPLICATION AND SUBMISSION INFORMATION**

10586 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
 10587 should have a scoping narrative in accordance with [Part 6](#). Project-specific criteria are highlighted
 10588 below.

10589 FEMA may request additional information after the subapplication has been submitted to ensure all
 10590 necessary information is received. However, all information required by the regulations and the HMA
 10591 Guide must be received before an assistance decision and award or final approval can be made.

10592 For flood risk reduction structures, the subapplication must include the following:

- 10593 ▪ Site map and location information.
- 10594 ▪ Site photographs of proposed project area and the impacted properties.
- 10595 ▪ Narrative of the flood risk being mitigated, including flood event history in the project area, if
 10596 available.
- 10597 ▪ Description of the existing conditions of the project area, including existing drainage systems,
 10598 if any, and structures and infrastructure impacted by flooding.
- 10599 ▪ Description of how the project will reduce flooding depths and damages and specify the level
 10600 of protection provided.
- 10601 ▪ Description of the structures and infrastructure that will benefit from the project.
- 10602 ▪ Documentation of two alternatives that were considered as part of the planning process. One
 10603 alternative may be a “no action alternative” that would reflect the impacts if no action were
 10604 taken. Describe why the selected project was the most practical, effective and
 10605 environmentally sound alternative.
- 10606 ▪ Description of proposed activity, including deliverables and tasks required to complete the
 10607 proposed activity.
- 10608 ▪ Documentation that the project can independently solve the problem and is not a functional
 10609 portion of a solution. Projects that are dependent on a contingent action to be effective or
 10610 feasible are not eligible.

10611 ▪ Description of the project components (e.g., alignment, materials, structural design,
10612 maintenance and how the project will fit in with surrounding systems).

10613 ▪ Description of construction activities (e.g., site access, storage and security; site preparation;
10614 temporary construction; earthwork, including importation of fill or disposal of fill; installation
10615 of conveyance features; and repairs to infrastructure that might be damaged during
10616 construction so that subsurface components can be installed).

10617 ▪ Description of installation of grade structures and scour protection.

10618 ▪ Description of all permitting requirements.

10619 It is necessary for subapplicants to demonstrate that there are no adverse impacts. Flood risk
10620 reduction projects are unique in that there is the potential to reduce risk of flooding in one area while
10621 increasing flood risk in another location. In addition to the items identified in [Part 6](#), the following
10622 technical data are required:

10623 ▪ Design plans, specifications and engineering analysis (such as design calculations and
10624 minimum level of protection provided by the project).

10625 ▪ A statement by a licensed professional engineer that the project will not have negative
10626 impacts upstream or downstream of the project.

10627 ▪ Hydrologic and hydraulic report that provides data to support engineering analysis.

10628 ▪ Pre- and post-project inundation maps.

10629 Because of the technical and complex nature of some flood risk reduction measures, FEMA may
10630 request additional information to determine/demonstrate technical feasibility and cost-effectiveness
10631 and to complete required EHP reviews.

10632 **B.5.5.1. Budget**

10633 All subapplications should include a line-item breakdown of all anticipated costs.

10634 Subapplicants may apply for subrecipient management costs to cover administrative costs.

10635 Management costs must be included in the subapplication budget as a separate line item. More
10636 information about the requirements for management cost requests can be found in [Part 13](#).

10637 **B.5.5.2. Schedule**

10638 A detailed schedule should be provided for all tasks identified in the project cost estimate and scope
10639 of work. The schedule should identify major milestones, with start and end dates for each activity.

10640 Project schedules must show completion of all activities including the construction period within the
10641 period of performance. Sufficient detail must be provided to document that the project can be
10642 completed within the period of performance.

10643 **B.5.5.3. Costs**

10644 Typical costs for a flood risk reduction project may include but are not limited to:

- 10645 ▪ Engineering and design services and cost estimate preparation.
- 10646 ▪ Data analysis/investigations directly related to the mitigation project, including geotechnical
- 10647 investigations, engineering reports, and hydrologic and hydraulic analyses.
- 10648 ▪ Construction management.
- 10649 ▪ Surveying.
- 10650 ▪ Permitting and/or legal fees.
- 10651 ▪ Project planning and design activities, including construction verification.
- 10652 ▪ All construction activities required for project completion.
- 10653 ▪ Cost related to complying with local utility requirements.
- 10654 ▪ Other costs mentioned above for specific flood risk reduction projects.

10655 **B.5.6. FLOOD RISK REDUCTION: SUBAWARD IMPLEMENTATION**

10656 The following are the basic steps in implementing an approved HMA flood risk reduction project:

- 10657 1. Pre-construction (acquire land, if applicable; carry out design process; seek technical
- 10658 consultant; prepare cost estimate; obtain construction permits; hire construction
- 10659 manager/contractor).
- 10660 2. Clear/prepare site and install erosion control measures to prepare for construction activities.
- 10661 3. Complete excavation, foundation work and grading.
- 10662 4. Construct project.
- 10663 5. Relocate/restore utility lines.
- 10664 6. Install plantings.
- 10665 7. Complete inspections.

10666 Post-award monitoring helps ensure subrecipients are achieving the objectives of the federal award
 10667 consistent with the performance goals and milestones described in the subaward. To assist the
 10668 recipient in monitoring flood risk reduction projects, the following milestone information or events
 10669 should be included in Quarterly Progress Reports:

- 10670 ▪ If the subrecipient is acquiring contract support, the subrecipient should report when the
10671 request for proposal is completed, when the contract is out for bid, when the bid period
10672 closes, when proposals are reviewed, when the contractor is selected and the date of the
10673 kickoff meeting.

- 10674 ▪ Describe the current status including a summary of:
 - 10675 ○ Recent progress and planned work.
 - 10676 ○ Risks identified or changes from the milestones/deliverables submitted with the scope of
10677 work (e.g., financial concerns, coordination issues with state or local governments and
10678 utilities, project management or contracting issues, legal disputes, and significant
10679 changes impacting construction activities or timelines such as delays due to weather,
10680 materials, procurement or labor issues).
 - 10681 ○ When construction has started, is substantially complete or completed.

- 10682 ▪ If property is purchased, the report should provide property address, purchase price and
10683 date.

- 10684 ▪ Any other milestones that have been identified in the subapplication, agreed to or are
10685 required by the recipient.

10686 **B.5.6.1. Budget and Scope Change**

10687 All budget and scope changes must have prior FEMA approval consistent with [Part 8](#). Because the
10688 final design may not be completed prior to award, once the project is awarded, the design must be
10689 finalized by a licensed professional engineer. If the scope of work or cost estimate changes because
10690 of completing the final design or to address permitting requirements, prior approval from FEMA is
10691 required.

10692 **B.5.7. FLOOD RISK REDUCTION: CLOSEOUT**

10693 Recipients and subrecipients must closeout projects in a timely manner consistent with [Part 9](#).

10694 Upon completing an HMA flood risk reduction project, the authority having jurisdiction over the
10695 project must submit to the recipient a final verification assurance that the HMA flood risk reduction
10696 project was constructed as designed and in accordance with the approved scope of work. This
10697 documentation is included as project closeout documentation and must confirm that the HMA flood
10698 risk reduction project provides the intended level of protection. If the HMA flood risk reduction
10699 project is in an SFHA, the recipient must provide FEMA documentation of flood insurance for the
10700 structure and a copy of the recorded deed amendment. All other HMA program closeout
10701 requirements must also be addressed. The recipient shall provide the following information:

- 10702 ▪ A Letter of Map Revision if a map revision was required.

- 10703 ▪ Photographs of the property site before and after project completion.
- 10704 ▪ Latitude/longitude of the project location to the nearest sixth decimal place. Starting and
10705 ending points may be requirement for large or linear projects such as a drainage
10706 improvement.
- 10707 ▪ Vicinity map and map of the SFHA, if applicable.
- 10708 ▪ Copy of the as-built drawings.
- 10709 ▪ Certification from a design professional that documents the project was completed in
10710 accordance with the scope of work and that all regulatory compliance grant conditions were
10711 implemented and documented.
- 10712 ▪ Final inspection report including the date of inspection and the name and job position of the
10713 inspector.
- 10714 ▪ Final signed operations and maintenance plan.

- 10715 Closeout of flood risk reduction projects includes the submittal of an operations and maintenance
10716 plan to FEMA for review prior to subaward closeout. In the plan, the recipient must confirm the plan
10717 is consistent with the HMA Guide, meets or exceed local codes, and is in conformance with
10718 appropriate permits. At a minimum, the operations and maintenance plan must include the following
10719 information:
 - 10720 ▪ Information demonstrating the completed project will be maintained to achieve the proposed
10721 hazard mitigation.
 - 10722 ▪ A description of the post-closeout maintenance activities that will be undertaken to maintain
10723 the project area.
 - 10724 ▪ The period of time the community is committing to maintaining the area and/or project site,
10725 which must be consistent with the project useful life in the BCA.
 - 10726 ▪ The department and job position that will be responsible for the project after construction
10727 has ended.
 - 10728 ▪ Estimated costs for annual maintenance of the project.
 - 10729 ▪ The schedule for completion of the maintenance activities.

- 10730 As with any constructed project, project plans for flood risk reduction projects that include
10731 bioengineering must include maintenance and monitoring. These activities may occur more
10732 frequently while plans are establishing but will likely be minimal after they are established.
10733 Maintenance costs are a local responsibility and not a FEMA-eligible cost. The overall need for these

10734 activities depends on site conditions, including climate, ongoing coastal erosion, storm impacts and
 10735 probability of animal disturbance.

10736 **B.5.8. FLOOD RISK REDUCTION: RESOURCES**



Flood Risk Reduction Resources

- 10738 ▪ FEMA BCA webpage: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>
- 10739 ▪ EHP review job aids: [https://www.fema.gov/grants/guidance-tools/environmental-](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
 10740 [historic/preparation-resources](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
- 10741 ▪ FEMA 333, *Federal Guidelines for Dam Safety: Hazard Potential Classification System for*
 10742 *Dams* (2004): <https://www.ferc.gov/sites/default/files/2020-04/fema-333.pdf>
- 10743 ▪ ASCE 24: <https://ascelibrary.org/doi/book/10.1061/asce24>
- 10744 ▪ The National Integrated Drought Information System website, the U.S. Drought Portal:
 10745 <http://www.drought.gov/drought>
- 10746 ▪ The U.S. Drought Monitor weekly map delineates drought conditions throughout the nation:
 10747 <http://droughtmonitor.unl.edu/>
- 10748 ▪ NASA Gravity Recovery and Climate Experiment provides satellite data on aquifer water
 10749 levels: http://www.nasa.gov/mission_pages/Grace
- 10750 ▪ U.S. Global Change Research Program conducts a National Climate Assessment every four
 10751 years: <http://www.globalchange.gov>
- 10752 ▪ NOAA Climate.gov provides science and information for a climate-smart nation:
 10753 <https://www.climate.gov>
- 10754 ▪ NOAA Digital Coast: <https://coast.noaa.gov/digitalcoast/>
- 10755 ▪ Policy Clarification: BCA Tools for Drought, Ecosystem Services, and Post-Wildfire Mitigation
 10756 for HMA (May 27, 2016): [https://www.fema.gov/media-library-data/1464899521902-](https://www.fema.gov/media-library-data/1464899521902-b2d31bbf89cc089c3cd43851a33d4aee/PolicyClarification_BCA(Drought-EcosystemServices-Wildfire)_508.pdf)
 10757 [b2d31bbf89cc089c3cd43851a33d4aee/PolicyClarification_BCA\(Drought-](https://www.fema.gov/media-library-data/1464899521902-b2d31bbf89cc089c3cd43851a33d4aee/PolicyClarification_BCA(Drought-EcosystemServices-Wildfire)_508.pdf)
 10758 [EcosystemServices-Wildfire\)_508.pdf](https://www.fema.gov/media-library-data/1464899521902-b2d31bbf89cc089c3cd43851a33d4aee/PolicyClarification_BCA(Drought-EcosystemServices-Wildfire)_508.pdf)

10759 **B.6. Floodproofing**

10760 **B.6.1. FLOODPROOFING: OVERVIEW**

10761 Floodproofing is defined as any combination of structural or nonstructural adjustments, changes or
 10762 actions that reduce or eliminate flood damage to a building, contents and attendant utilities and
 10763 equipment.⁴¹³ Floodproofing can prevent damage to existing buildings and can be used to meet
 10764 compliance requirements for new construction of nonresidential buildings.

10765 Floodproofing measures are either passive or active, depending on whether they require human
 10766 intervention. Passive measures do not require human intervention and are recommended whenever
 10767 possible. Active (or emergency) measures require human intervention and are effective only if there
 10768 is enough warning time to mobilize the labor and equipment necessary to implement them and to
 10769 safely evacuate.

10770 The NFIP allows a new or substantially improved nonresidential building in an A Zone (Zone A, AE, A1-
 10771 30, AR, AO or AH) to have a lowest floor below the Base Flood Elevation, provided that a licensed
 10772 professional engineer or architect has certified the design and methods of construction as being dry
 10773 floodproofed in accordance with established criteria.

10774 Floodproofing is not permitted in Coastal High Hazard Areas (Zone V, VE or V1-30). FEMA
 10775 recommends that floodproofing be implemented up to 1 foot above Base Flood Elevation for a factor
 10776 of safety and to receive full credit for flood insurance rating.

10777 Limited enclosed areas elevated within newly constructed and substantially improved nonresidential
 10778 structures may be permitted provided they are wet floodproofed. Certain other categories of
 10779 structures may be allowed to be wet floodproofed if a variance is issued and other requirements are
 10780 met.

10781 The following terms are important when considering floodproofing projects:

- 10782 ▪ **Substantial damage** is damage of any origin sustained by a structure whereby the cost of
 10783 restoring the structure to its before-damage condition would equal or exceed 50 percent of
 10784 the market value of the structure before the damage occurred.

- 10785 ▪ **Substantial improvement** is any repair, reconstruction, rehabilitation, addition or
 10786 improvement of or to a building, the cost of which equals or exceeds 50 percent of the
 10787 market value of the building before the improvement or repair is started (certain historic
 10788 structures may be excluded).

⁴¹³ [44 CFR § 59.1](#), ASCE 24

10789 ▪ **Substantially impermeable walls** shall not permit the accumulation of more than 4 inches of
 10790 water depth during a 24-hour period, and sump pumps shall be required to control this
 10791 seepage.

10792 ▪ **Base flood elevation** is the elevation of the base flood relative to the datum specified on a
 10793 community’s FIRM. The base flood has a 1-percent chance of being equaled or exceeded in
 10794 any given year (commonly called the 1-percent annual chance flood). Base flood elevations
 10795 are shown on FIRMs for many SFHAs.

10796 ▪ **Freeboard** is an added margin of safety expressed in feet above a specific flood elevation,
 10797 usually the Base Flood Elevation. In states and communities that require freeboard, buildings
 10798 are required to be elevated or floodproofed to the higher elevation. For example, if a
 10799 community adopts a 2-foot freeboard requirement, nonresidential buildings are required to
 10800 be elevated or floodproofed to 2 feet above the Base Flood Elevation.

10801 ▪ **Design flood elevation** is the elevation of the design flood relative to the datum specified on
 10802 the community’s FIRM. The design flood is associated with the greater of the area subject to
 10803 the base flood or the area designated as a flood hazard area on a community flood map or
 10804 otherwise designated.

10805 More information on floodproofing can be found at FEMA’s [“Building Science – Flood Publications”](#)
 10806 webpage.

10807 **B.6.1.1. Dry Floodproofing of Nonresidential Structures**

10808 Dry floodproofing of nonresidential structures consists of a combination of measures that result in a
 10809 nonresidential structure (including the attendant utilities and equipment) being watertight with all
 10810 elements substantially impermeable to the entrance of floodwater and with structural components
 10811 having the capacity to resist flood loads.

10812 The purpose of dry floodproofing a building is to make it watertight to floods. Dry floodproofing
 10813 reduces the potential for flood damage by reducing the probability that the building interior will be
 10814 inundated. It can be an appropriate alternative for flood mitigation when relocating or elevating
 10815 buildings is not cost-effective or technically feasible.

10816 The minimum performance requirement for dry floodproofing measures is for a space that is
 10817 protected by walls that are substantially impermeable and resistant to flood loads. A substantially
 10818 impermeable wall should limit water accumulation to a maximum accumulation of four inches in a
 10819 24-hour period with a sump pump to control seepage. However, the minimum performance
 10820 requirement can be exceeded with proper planning, design and materials.

10821 Incorporating flood damage-resistant materials into the dry floodproofing design up to the height of
 10822 the dry floodproofing measure is recommended. Additionally, building systems such as walls and
 10823 foundations may need to be strengthened to withstand direct flood forces and the loads imposed by
 10824 floodproofing measures (e.g., shields, watertight doors), which are used to temporarily seal openings.

10825 An effective dry floodproofing retrofit should include the following:

- 10826 ▪ Detailed site evaluation.
- 10827 ▪ Detailed building evaluation.
- 10828 ▪ Careful evaluation of all the dry floodproofing measures, including a consideration of residual
10829 risk.
- 10830 ▪ Design by a qualified licensed professional engineer or architect.
- 10831 ▪ Verification/testing that the constructed systems provide the desired floodproofing
10832 effectiveness.
- 10833 ▪ Floodproofing Certificate for Nonresidential Structures for the dry floodproofing design.
- 10834 ▪ A plan for deploying any active dry floodproofing measures that require human intervention.
- 10835 ▪ Sufficient warning time to deploy active dry floodproofing measures and vacate the building.
- 10836 ▪ Operations and maintenance plan.

10837 **B.6.1.2. Dry Floodproofing of Historic Residential Structures**

10838 Though HMA does not allow for floodproofing residential structures, the NFIP gives special
10839 consideration to the unique value of designated historic buildings and structures. Provided such
10840 structures retain their designations, communities do not have to require them to be brought into
10841 compliance if the structures will be substantially improved or have been substantially damaged. The
10842 NFIP definition of “historic structures” includes structures that are (1) listed or preliminarily
10843 determined to be eligible for listing in the National Register of Historic Places, (2) certified or
10844 preliminarily determined by the Secretary of the Interior Department as contributing to the historical
10845 significance of a registered historic district or a district preliminarily determined to qualify as a
10846 registered historic district, or (3) designated as a historic site under a state or local historic
10847 preservation program approved by the Secretary of the Interior Department.⁴¹⁴ The definition does
10848 not include structures that are merely old, those that residents refer to as historic or those that
10849 happen to be located in historic districts.

10850 When voluntary retrofit floodproofing measures are applied to historic buildings, the measures
10851 should be designed to mitigate or reduce the flood risk while preserving the building’s historic
10852 integrity. Consultation with the state or tribal historic preservation officer and a design professional
10853 (engineer or architect), preferably experienced in rehabilitating historic structures, is necessary.
10854 Ideally, any retrofit floodproofing measure applied to a historic building and/or its site will not affect

⁴¹⁴ [44 CFR § 59.1](#)

10855 the property’s designation. If a structure does not retain its historic designation, it is subject to the
 10856 basic NFIP requirements for substantial improvement/damage.

10857 Retrofit floodproofing measures for historic buildings need not be comprehensive to provide at least
 10858 some degree of protection.

10859 **B.6.1.3. Wet Floodproofing of Nonresidential Structures**

10860 Wet floodproofing consists of the use of flood-damage-resistant materials and construction
 10861 techniques to minimize flood damage to areas below the flood protection level of a structure, which
 10862 is intentionally allowed to flood.

10863 Wet floodproofing involves the following:

10864 ▪ Using flood damage-resistant materials below the design flood elevation throughout the
 10865 building.

10866 ▪ Raising utilities and important contents to or above the flood protection level.

10867 ▪ Installing and configuring electrical and mechanical systems to minimize disruptions and
 10868 facilitate repairs.

10869 ▪ Installing flood openings or other methods to equalize the hydrostatic pressure exerted by
 10870 floodwaters.

10871 ▪ Installing pumps to remove floodwater gradually from basement areas after the flood.

10872 **B.6.2. FLOODPROOFING: ELIGIBILITY**

10873 Nonresidential floodproofing projects are eligible under HMGP, HMGP Post Fire, BRIC and FMA. For
 10874 FMA only, all properties included in a subapplication for nonresidential floodproofing assistance
 10875 must be NFIP-insured at the time of the opening of the application period. Flood insurance must be
 10876 maintained after completion of the mitigation activity and for the life of the structure.

10877 **B.6.2.1. Eligible Activity**

10878 Many nonresidential buildings can benefit from using a combination of wet and dry floodproofing
 10879 measures for adequate protection. Combining the above activities is particularly useful when one or
 10880 more of the following building or site conditions exist:

10881 ▪ Multistory or split-level buildings where different measures can be applied to different
 10882 foundation types at different elevations.

10883 ▪ Large factories, warehouses and other industrial facilities constructed of a variety of
 10884 materials that respond better to multiple floodproofing measures.

- 10885 ▪ Groups of buildings on the same site but at different elevations.

10886 **B.6.2.1.1. Use of ASCE 24 as Minimum Design Requirements for Certain Flood Risk Reduction**
 10887 **Activities**

10888 FEMA will use the latest published edition of ASCE 24 or its equivalent as the minimum design
 10889 criteria for all HMA-assisted dry floodproofing projects in flood hazard areas. These flood hazard
 10890 areas include floodways, coastal high-hazard areas and other high-risk flood hazard areas such as
 10891 alluvial fans, flash flood areas, mudslide areas, erosion-prone areas and high-velocity areas. ASCE
 10892 24 addresses design and construction requirements for dry floodproofing for buildings in flood
 10893 hazard areas when used for the construction of new buildings or to substantially improve existing
 10894 buildings (including repair of substantial damage). It also sets forth requirements for elevation,
 10895 foundation designs, enclosures below elevated buildings, materials, wet floodproofing, utility
 10896 installations, building access and miscellaneous structures (e.g., decks, porches, patios, garages,
 10897 chimneys and fireplaces, pools, and above- and belowground storage tanks). The use of the ASCE 24
 10898 standard or its equivalent will allow applicants to better demonstrate the technical feasibility and
 10899 effectiveness of HMA projects in flood hazard areas and facilitate consistency in implementing HMA
 10900 projects in flood hazard areas.

10901 **B.6.2.2. Ineligible Activity**

10902 The project must be consistent with the criteria described in [Part 4](#).

10903 Floodproofing is not permitted in Coastal High Hazard Areas (Zone V, VE or V1-30). The NFIP allows a
 10904 new or substantially improved nonresidential building in an A Zone (Zone A, AE, A1-30, AR, AO or AH)
 10905 to have a lowest floor below the Base Flood Elevation, provided that the design and methods of
 10906 construction have been certified by a licensed professional engineer or architect as being dry
 10907 floodproofed in accordance with established criteria.

10908 Dry floodproofing is not permitted:

- 10909 ▪ In Zone V under the NFIP.
- 10910 ▪ In Coastal A Zones (including A, AB, A1-30, AH, AO and AR) or Zone V according to ASCE 24.
- 10911 ▪ In Zone V if the community enforces building codes based on the IBC.

10912 **B.6.2.3. Duplication of Programs**

10913 FEMA cannot provide assistance for activities that it determines the more specific authority lies with
 10914 another federal agency or program. For more information see [Part 4](#).

10915 **B.6.2.4. Cost-Effectiveness**

10916 Applicants and subapplicants must demonstrate that mitigation projects are cost-effective. Projects
 10917 must be consistent with [Part 5](#).

10918 Determining the cost-effectiveness of a floodproofing project can be done using either the Flood
 10919 Modeled Damages methodology or Historic/Professional Expected Damages methodologies, both of
 10920 which are part of the FEMA BCA Toolkit. The Flood Modeled Damages method relies on flood hazard
 10921 data, building characteristics and Depth-Damage Functions. The Historic/Professional Expected
 10922 Damages methodology relies on historical or expected damage along with a recurrence interval
 10923 associated with the damage. The Historic/Professional Expected Damages methodology is used
 10924 more often for floodproofing because it generally requires less data collection and may better
 10925 represent the complexity of some floodproofing projects.

10926 For dry floodproofing, retrofitting an entire large building or multiple buildings is a complex and
 10927 expensive undertaking that requires analysis and design to protect the buildings against flooding
 10928 from numerous points of entry of various sizes. Consequently, limiting dry floodproofing measures to
 10929 the most critical elements or operations of a facility that cannot be elevated may be more cost-
 10930 effective. Building managers and owners can then focus on elevating other critical areas and wet
 10931 floodproofing other lower-level areas that are less critical. This situation may apply to flood-prone
 10932 hospitals, schools, fire and police stations, emergency operations centers, communication and data
 10933 centers, essential government buildings and other critical facilities that serve the community or
 10934 affect the safety, health or welfare of a large population.

10935 [Table 25](#) highlights the cost-effectiveness of floodproofing projects.

10936 **Table 25: Likelihood of Cost-Effectiveness of Floodproofing Project**

Magnitude of Potential Loss (\$)	Probability of Loss		
	Low	Medium	High
Low	Unlikely	Unlikely	Likely
Medium	Unlikely	Likely	Highly Likely
High	Likely	Likely	Highly Likely

10937
 10938 For more information, see [Part 5](#).

10939 **B.6.2.5. Feasibility and Effectiveness**

10940 Projects must be consistent with [Part 3](#). Mitigation projects assisted by HMA must be both feasible
 10941 and effective at mitigating the risks of the hazard(s) for which the project was designed. A project’s
 10942 feasibility is demonstrated through conformance with accepted engineering practices, established
 10943 codes, standards, modeling techniques or best practices. For structure elevation and dry
 10944 floodproofing activities, a statement must be included certifying that the project will be designed in
 10945 conformance with the latest published edition of ASCE 24 and will meet the feasibility and
 10946 effectiveness requirement. Because the final design may not be completed prior to award, once the
 10947 project is awarded, the design must be finalized by a licensed professional engineer or architect, with
 10948 some exceptions.

10949 FEMA recommends assessing a building in two stages. First, a preliminary assessment is completed
 10950 to help determine the overall feasibility of flood mitigation. The preliminary assessment is often
 10951 based only on a visual examination of the building and, when available, a review of construction
 10952 drawings. The desired depth of floodproofing can also be determined in the preliminary assessment.

10953 If the preliminary assessment suggests that flood mitigation is possible, the next stage is to perform
 10954 additional site and drawing reviews and conduct testing and analyses to confirm that flood mitigation
 10955 is feasible. A detailed assessment requires accurate drawings of the building or, if drawings are not
 10956 available, invasive testing to determine the structural aspects and condition of the building. Soil
 10957 tests to determine the type and permeability of on-site soils may also be needed.

10958 The condition assessment should not only determine the ability of structural components to
 10959 withstand flood loads but also their impermeability. For example, basement walls between adjacent
 10960 buildings should be evaluated for flood load resistance and impermeability. This is especially
 10961 important in an urban environment or buildings constructed in phases; otherwise, the source of
 10962 flooding may become the adjacent building. Structural components, window wells, ventilation
 10963 openings and utilities can each be floodwater points of entry if not properly assessed and mitigated.
 10964 During the condition assessment, bowing, lateral movement, corrosion, staining and evidence of
 10965 frequent water entry all may indicate the building is not an ideal candidate for dry floodproofing.

10966 A structural engineer can evaluate the building to determine whether it is feasible to retrofit by
 10967 computing flood loads, evaluating options, developing a retrofit floodproofing solution and preparing
 10968 a probable budget.

10969 **B.6.2.6. Environmental and Historic Preservation**

10970 All subapplications submitted to FEMA must meet the EHP criteria in [Part 4](#). All subapplications must
 10971 provide the information described in [Part 6](#) so that FEMA may perform the EHP review.

10972 **B.6.2.7. National Flood Insurance Program Eligibility Requirements**

10973 Mitigation projects sited within the SFHA are eligible only if the jurisdiction is participating in the
 10974 NFIP. For additional information on requirements, see [Part 4](#).

10975 The NFIP’s performance requirements are identical for new construction and substantial
 10976 improvement or repair of substantial damage of existing buildings. Some of the key requirements
 10977 are:⁴¹⁵

- 10978 ▪ Buildings shall be designed and adequately anchored to prevent flotation, collapse or lateral
 10979 movement resulting from hydrodynamic and hydrostatic loads, including the effects of
 10980 buoyancy.

⁴¹⁵ [44 CFR § 60.3\(a\)](#)

- 10981 ■ Building materials used below the Base Flood Elevation shall be resistant to flood damage.
- 10982 ■ Buildings shall be constructed by methods and practices that minimize flood damage.
- 10983 ■ Buildings shall be constructed with electrical, heating, ventilation, air conditioning, and
10984 plumbing equipment and other service facilities that are designed and/or located to prevent
10985 water from entering or accumulating within the components.
- 10986 ■ New and replacement water supply systems shall be designed to minimize or eliminate
10987 infiltration of flood waters into the systems.
- 10988 ■ New and replacement sanitary sewage systems shall be designed to minimize or eliminate
10989 the infiltration of discharges from the systems into floodwaters.
- 10990 ■ Within Zones A1–30, AE and AH on the community’s FIRM, all new construction and
10991 substantial improvement of nonresidential structures must satisfy one of the following:
 - 10992 ○ Have the lowest floor (including basement) elevated to or above the base flood level.
 - 10993 ○ Together with attendant utility and sanitary facilities, be designed:
 - 10994 – So that below the base flood level, the structure is watertight with walls substantially
10995 impermeable to the passage of water.
 - 10996 – With structural components having the capability of resisting hydrostatic and
10997 hydrodynamic loads and the effects of buoyancy.⁴¹⁶
 - 10998 ■ Within any Zone AO on the community’s FIRM, all new construction and substantial
10999 improvement of nonresidential structures must satisfy one of the following:
 - 11000 ○ Have the lowest floor (including basement) elevated above the highest adjacent grade at
11001 least as high as the depth number specified in feet on the community’s FIRM (at least 2
11002 feet if no depth number is specified).
 - 11003 ○ Together with attendant utility and sanitary facilities, be completely floodproofed to the
11004 level that meets the floodproofing standards specified in [44 CFR § 60.3\(c\)\(3\)\(ii\)](#) and [44
11005 CFR § 60.3\(c\)\(8\)](#).⁴¹⁷

⁴¹⁶ [44 CFR § 60.3\(c\)\(3\)](#)

⁴¹⁷ [44 CFR § 60.3\(c\)\(8\)](#)

11006 **B.6.2.7.1. Wet Floodproofing in Special Flood Hazard Areas**

11007 NFIP regulations do not permit wet floodproofing to be used to bring a substantial
 11008 improvement/damage structure into compliance unless the area to be wet floodproofed is used
 11009 solely for parking, building access or storage.⁴¹⁸

11010 Application of wet floodproofing as a flood protection technique under the NFIP is limited to specific
 11011 situations in A Zones (including A, AB, AI-30, AH, AO and AR). For certain uses and types of
 11012 structures, communities may allow wet floodproofing only through the issuance of a variance from
 11013 certain floodplain management requirements. The situations and conditions in which a community
 11014 may allow wet floodproofing are described in detail in [FEMA Technical Bulletin 7: Wet Floodproofing](#)
 11015 [Requirements for Structures Located in Special Flood Hazard Areas in Accordance with the National](#)
 11016 [Flood Insurance Program](#) (December 1993).

11017 For structures in V zones (includes V, VB and VI-30), more stringent design and construction
 11018 requirements have been established for the portion of a structure below the Base Flood Elevation.
 11019 For information on V-zone design and construction requirements, refer to the NFIP regulations under
 11020 [44 CFR § 60.3](#), [FEMA P-55: Coastal Construction Manual: Principles and Practices of Planning,](#)
 11021 [Siting, Designing, Constructing, and Maintaining Residential Buildings in Coastal Areas, Fourth](#)
 11022 [Edition, Volume I](#) (August 2011) and FEMA’s [“National Flood Insurance Technical Bulletins”](#)
 11023 webpage.

11024 [Table 26](#) provides the NFIP’s general requirements for wet floodproofing.

11025 **Table 26: NFIP General Requirements for Wet Floodproofing**

NFIP General Requirements for Wet Floodproofing	References
Permitted only for attached garages or parking, access, and storage areas below the Base Flood Elevation.	44 CFR § 60.3 FEMA Technical Bulletin 7
Some historic structures, accessory structures, structures functionally dependent on proximity to water, and agricultural buildings may be wet floodproofed.	
Portions of the structure below the Base Flood Elevation must be constructed of flood-resistant materials.	
Must be designed to allow for automatic entry and exit of floodwaters.	

11026 **B.6.2.7.2. Dry Floodproofing in Special Flood Hazard Areas**

11027 An important objective of the NFIP is to protect structures constructed in floodplains from flood-
 11028 induced damage. In support of this objective, the NFIP regulations include building design and

⁴¹⁸ [44 CFR § 60.3\(c\)\(5\)](#)

11029 construction criteria that apply to new construction and substantial improvements (including
 11030 structures that have incurred substantial damage) of existing structures in SFHAs. According to these
 11031 criteria, residential structures in A Zones must be constructed with their lowest floors elevated to or
 11032 above the Base Flood Elevation. Nonresidential structures constructed in A Zones must either have
 11033 their lowest floors elevated to or above the Base Flood Elevation or be dry floodproofed to or above
 11034 the Base Flood Elevation. Measures to accomplish dry floodproofing of nonresidential structures
 11035 must provide watertight protection and be designed to withstand hydrostatic, hydrodynamic and
 11036 impact forces produced by flooding. The intent is to provide complete protection at least up to the
 11037 floodproofing design level, which must, at a minimum, be at the Base Flood Elevation.

11038 Dry floodproofing can be used to fulfill the requirements for nonresidential buildings in SFHAs that
 11039 are not subject to high-velocity wave action. Some requirements apply to existing buildings when the
 11040 cost of repairing or improving a building in an SFHA equals or exceeds 50 percent of the building’s
 11041 market value. NFIP requires new and substantially improved buildings be constructed in ways that
 11042 minimize or prevent flood damage. As with new nonresidential buildings, existing nonresidential
 11043 buildings may be brought into compliance by elevating them on compliant foundations or, if
 11044 determined to be feasible, by implementing dry floodproofing measures.

11045 [Table 27](#) provides the NFIP’s general requirements for dry floodproofing.

11046 **Table 27: NFIP General Requirements for Dry Floodproofing**

NFIP General Requirements for Dry Floodproofing	References
For new construction and substantial improvement/damage, permitted only in nonresidential buildings in SFHAs not subject to high velocity wave action (i.e., permitted in Zone A).	44 CFR § 60.3(c) NFIP Technical Bulletin 3 ⁴¹⁹
Must be designed so the structure is watertight below the Base Flood Elevation with walls substantially impermeable to the passage of floodwater.	
Attendant utility and sanitary facilities must be completely floodproofed to below the Base Flood Elevation.	
A licensed professional engineer or architect must develop and/or review structural designs, specifications and plans and certify that the design and methods of construction are in accordance with accepted standards of practice.	
Not permitted in Coastal High Hazard Areas (Zone V).	

11047
 11048 FEMA Form 086-0-34: *Floodproofing Certificate for Non-Residential Structures* (June 29, 2021) is
 11049 required for floodproofing measures to be recognized for NFIP purposes. It is used by the designer

⁴¹⁹ Requirements for the Design and Certification of Dry Floodproofed Non-Residential and Mixed-Use Buildings Located in Special Flood Hazard Areas in Accordance with the National Flood Insurance Program (January 2021)

11050 only to certify the design, not as an “as-built” certification. It is required for the following types of
11051 buildings in Zone A for dry floodproofing:

- 11052 ▪ Dry floodproofed nonresidential structures (no residential uses).
- 11053 ▪ Dry floodproofed portions of mixed-use buildings that have all residential uses located above
11054 the floodproofing design elevation.

11055 This certificate is not required for wet floodproofing.

11056 **B.6.3. FLOODPROOFING: APPLICATION AND SUBMISSION INFORMATION**

11057 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
11058 should have a scoping narrative in accordance with [Part 6](#). Project-specific criteria are highlighted
11059 below.

11060 FEMA may request additional information after the subapplication has been submitted to ensure all
11061 necessary information is received. However, all information required by the regulations and the HMA
11062 Guide must be received before an assistance decision and award or final approval can be made.

11063 Businesses cannot apply for HMA programs, so the nonresidential property owner must work with
11064 the local government to develop a project subapplication on behalf of the owner. Local governments
11065 may submit a retrofit project for a property as an individual subapplication or combine it with other
11066 projects as part of an aggregate subapplication (subject to program restrictions). Aggregating benefit
11067 and cost values is allowed for multiple buildings if they are all vulnerable to damage from similar
11068 hazard conditions. See [Part 5](#)Part 5 for information on aggregating projects in one subapplication.

11069 For nonresidential floodproofing projects, the subapplication must include the following:

- 11070 ▪ Identification of the property to be mitigated.
- 11071 ▪ Identification of key project personnel and roles, such as design professional and contractor.
- 11072 ▪ Selection of an eligible project.
- 11073 ▪ Inspection of the building by a licensed professional engineer or architect to verify the project
11074 can be implemented, if possible; if not done at this stage, it must be done during Step 4,
11075 Perform a Condition Assessment (Existing Structures).⁴²⁰.
- 11076 ▪ Development of a project budget and work schedule.

⁴²⁰ NFIP Technical Bulletin 3, Requirements for the Design and Certification of Dry Floodproofed Non-Residential and Mixed-Use Buildings.

11077 ▪ Completion of BCA using FEMA’s BCA Toolkit (see [Part 5](#)Part 5 for additional information); if
 11078 the BCR is 1.0 or more, the project is cost-effective. FEMA requires a BCR of 1.0 or greater
 11079 for HMA.

11080 ▪ Verification that properties in designated SFHAs will obtain flood insurance and that the
 11081 insurance will be recorded on the property deed.

11082 The local government submits the subapplication to the state. The state then selects projects based
 11083 on its priorities and submits applications to FEMA for review. FEMA reviews the projects for eligibility,
 11084 completeness, engineering feasibility, cost-effectiveness, cost-reasonableness and EHP
 11085 documentation. The review process also confirms all hazard mitigation activities adhere to all
 11086 relevant statutes; regulations; program requirements, including other applicable federal, state, local
 11087 and tribal laws; implementing regulations; and executive orders, all of which are detailed in the
 11088 program guidance. Once FEMA approves a project and awards the grant, the state distributes the
 11089 assistance to the local government, which distributes it to individuals as appropriate. No
 11090 construction activities should begin until after the money has been awarded; HMA is not available for
 11091 activities initiated or completed prior to award or final approval.

11092 **B.6.3.1. Activities and Schedule**

11093 All subapplications, as part of the scope of work, should include an activities description referencing
 11094 industry standards or project plans and specifications.

11095 Additionally, a scope of work should include work activities, deliverables and timelines associated
 11096 with a project. For a dry floodproofing project, the scope of work typically includes the problem
 11097 description, proposed solution, description of existing conditions and work schedule.

11098 **B.6.3.2. Budget**

11099 All subapplications should include a line-item breakdown of all anticipated costs. Project costs
 11100 typically include:

- 11101 ▪ Labor.
- 11102 ▪ Materials.
- 11103 ▪ Engineering and design.
- 11104 ▪ Project management.
- 11105 ▪ Construction engineering and inspection.
- 11106 ▪ Permitting.
- 11107 ▪ Estimated annual maintenance costs.

11108 The costs for dry floodproofing a structure will depend on the following factors:

- 11109 ▪ Size of the structure.
- 11110 ▪ Height of the flood protection elevation.
- 11111 ▪ Types of sealant and shield material used.
- 11112 ▪ Number of plumbing lines that must be protected by check valves.
- 11113 ▪ Number of openings that must be covered by shields.

11114 Subapplicants may apply for subrecipient management costs to cover administrative costs.
 11115 Management costs must be included in the subapplication budget as a separate line item. More
 11116 information about the requirements for management cost requests can be found in [Part 13](#).

11117 **B.6.4. FLOODPROOFING: SUBAWARD IMPLEMENTATION**

11118 The following are basic steps in implementing an approved HMA nonresidential floodproofing project:

- 11119 1. If a design was not developed before application development, secure a licensed
 11120 professional engineer or architect to design, inspect and sign off on a mitigation retrofit
 11121 solution within the bounds of the approved subaward.
- 11122 2. If a design solution was developed before application development or if a licensed
 11123 professional engineer or architect is not needed because of the nature of the work, secure
 11124 the services of a contractor to execute the work in the approved subaward.
- 11125 3. Monitor the work being performed to ensure that all award and subaward requirements are
 11126 being met.
- 11127 4. Inspect the finished project and verify that all award and subaward requirements have been
 11128 met. Work with the designer/contractor to resolve any issues of concern and work with the
 11129 state in closing out the subaward after all requirements have been met.

11130 **B.6.4.1. Budget and Scope Change**

11131 All budget and scope changes must have prior FEMA approval consistent with [Part 8](#).

11132 Because the final design may not be completed prior to award, once the project is awarded, the
 11133 design must be finalized by a licensed professional engineer or architect, with some exceptions. If
 11134 the scope of work or budget changes due to completing the final design, scope of work modifications
 11135 must be made. If there is already a final design when the grant is awarded, the subrecipient can
 11136 proceed with the appropriate contracting procurement procedures to secure the services of a
 11137 contractor to execute the requirements in the design, award and subaward documents.

11138 **B.6.5. FLOODPROOFING: CLOSEOUT**

11139 Recipients and subrecipients must closeout projects in a timely manner consistent with [Part 9](#).

11140 When the project has been completed, a licensed professional engineer or architect (preferably the
 11141 same one as used during the initial project design) should conduct a final inspection and verify in an
 11142 inspection report that the project they designed/signed off on was implemented as intended in the
 11143 approved subaward. If a contractor was the only professional who performed the work, the
 11144 contractor should verify in writing that they performed the work as outlined in the contract and
 11145 subaward. The subrecipient must ensure that the subaward requirements have been met through
 11146 any contracts the subrecipient has with professional engineers and architects or contractors
 11147 because the subrecipient is ultimately responsible for meeting the requirements. Poorly written
 11148 contracts can result in work that complies with the contract but is noncompliant with the subaward
 11149 requirements. The written verification of the work performed along with other project documentation
 11150 demonstrating subaward compliance will help facilitate a smooth, efficient project closeout.

11151 After obtaining project verification from the designer/contractor, the subrecipient then submits the
 11152 subaward project documentation to the recipient. The recipient verifies that the work was completed
 11153 in accordance with the approved subaward documentation, including the scope of work, and
 11154 performs the closeout procedures.

11155 In addition to the typical HMA program closeout processes, closeout of nonresidential floodproofing
 11156 projects generally includes the following:

- 11157 ▪ A certificate of occupancy and the final *Elevation Certificate* (FEMA Form 086-0-33) for each
 11158 structure in the project to certify that the structure is code compliant and was elevated to the
 11159 required elevation. FEMA will use the latest published edition of ASCE 24 or its equivalent as
 11160 the minimum design.
- 11161 ▪ A copy of a recorded deed for each property, including deed requirements for property
 11162 maintenance and flood insurance.
- 11163 ▪ A signed *Acknowledgement of Conditions for Mitigation of Property in an SFHA with FEMA*
 11164 *Grant Funds* form for each structure.
- 11165 ▪ A certification from a building official or licensed professional engineer or architect verifying
 11166 the structure was designed and constructed to the minimum standard of the two most
 11167 recently published editions of the International Codes, even in locations where no code has
 11168 been adopted.
- 11169 ▪ Final inspection report with the name of the inspector and date of inspection.
 - 11170 ○ The report should provide a narrative of all the components of the project that were
 11171 completed and verify the scope of work was completed and is consistent with activities
 11172 identified in the scope of work.

- 11173 ○ The report should include photographs of the project area(s) with clear labels and a map
- 11174 of the project area(s) with accurate geospatial coordinates.
- 11175 ■ A front, rear and side photograph of the final elevated structure, including the date of the
- 11176 photograph, property address, latitude/longitude to the nearest sixth decimal place and the
- 11177 name of the photographer.
- 11178 ■ Verification of flood insurance for each structure.
- 11179 ■ An update to the property site information in the FEMA electronic application system for each
- 11180 structure.

11181 **B.6.6. FLOODPROOFING: RESOURCES**



Floodproofing Resources

- 11183 ■ FEMA BCA webpage: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>
- 11184 ■ EHP review job aids: [https://www.fema.gov/grants/guidance-tools/environmental-](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
- 11185 [historic/preparation-resources](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
- 11186 ■ Increased Cost of Compliance: <https://www.fema.gov/increased-cost-compliance-coverage>
- 11187 ■ NFIP TBs 3 and 7: <https://www.fema.gov/nfip-technical-bulletins>
- 11188 ■ FEMA Building Science webpage: <https://www.fema.gov/building-science>
- 11189 ■ Floodproofing Non-Residential Buildings: [https://www.fema.gov/sites/default/files/2020-](https://www.fema.gov/sites/default/files/2020-07/fema_p-936_floodproofing_non-residential_buuildings_110618pdf.pdf)
- 11190 [07/fema_p-936_floodproofing_non-residential_buuildings_110618pdf.pdf](https://www.fema.gov/sites/default/files/2020-07/fema_p-936_floodproofing_non-residential_buuildings_110618pdf.pdf)
- 11191 ■ NFIP Flood Insurance Floodproofing Certificate for Non-Residential Structures:
- 11192 <https://www.fema.gov/flood-insurance/find-form/underwriting>
- 11193 ■ Non- Residential Floodproofing: Requirements and Certification for Buildings Located in
- 11194 SFHAs in Accordance with the NFIP: [https://www.fema.gov/sites/default/files/2020-](https://www.fema.gov/sites/default/files/2020-07/fema_tb3_non-residential_flood-proofing_requirements_cert.pdf)
- 11195 [07/fema_tb3_non-residential_flood-proofing_requirements_cert.pdf](https://www.fema.gov/sites/default/files/2020-07/fema_tb3_non-residential_flood-proofing_requirements_cert.pdf)
- 11196 ■ Floodproofing Regulations (EP 1165-2-314), a technical model for floodproofing-related
- 11197 regulations but not a regulation (USACE 1995):
- 11198 [https://www.publications.usace.army.mil/Portals/76/Publications/EngineerPamphlets/EP](https://www.publications.usace.army.mil/Portals/76/Publications/EngineerPamphlets/EP_1165-2-314.pdf)
- 11199 [_1165-2-314.pdf](https://www.publications.usace.army.mil/Portals/76/Publications/EngineerPamphlets/EP_1165-2-314.pdf)
- 11200 ■ ASCE 7 – Minimum Design Loads for Buildings and Other Structures:
- 11201 [https://sp360.asce.org/PersonifyEbusiness/Merchandise/Product-](https://sp360.asce.org/PersonifyEbusiness/Merchandise/Product-Details/productId/233133882?_ga=2.23792690.986535157.1605995028-909266363.1575997667)
- 11202 [Details/productId/233133882?_ga=2.23792690.986535157.1605995028-](https://sp360.asce.org/PersonifyEbusiness/Merchandise/Product-Details/productId/233133882?_ga=2.23792690.986535157.1605995028-909266363.1575997667)
- 11203 [909266363.1575997667](https://sp360.asce.org/PersonifyEbusiness/Merchandise/Product-Details/productId/233133882?_ga=2.23792690.986535157.1605995028-909266363.1575997667)
- 11204 ■ ASCE 24 – Flood Resistant Design and Construction:
- 11205 <https://ascelibrary.org/doi/book/10.1061/asce24>

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- Floodproof Construction: Working for Coastal Communities:
<http://gccds.msstate.edu/research/floodproofconstruction/dryfloodproofconstructionresearchphasei/pdf%20chapters/SERRI%20Report%2080024%20chapter%201%20and%20intro.pdf>
- Flood Proofing Tests: Tests of Materials and Systems for Flood Proofing Structures:
<https://apps.dtic.mil/dtic/tr/fulltext/u2/a636021.pdf>

11212 **B.7. Tsunami Vertical Evacuation Refuge**

11213 **B.7.1. TSUNAMI VERTICAL EVACUATION REFUGE: OVERVIEW**

11214 Tsunamis are rare events often accompanied by some advance warning, from minutes to a couple of
11215 hours. Depending on their wave height and speed, they can inundate low-lying coastal areas as far
11216 as 1 mile inland.⁴²¹ As such, strategies for mitigating tsunami risk have generally involved
11217 evacuation to areas of naturally occurring high ground outside the area of tsunami inundation. In
11218 some locations, high ground may not exist, or tsunamis triggered by local events may not allow
11219 sufficient warning time for communities to evacuate low-lying areas. In the case of tsunamis
11220 triggered by distant events, which can be accompanied by longer warning times, coastal
11221 communities can still be at risk if evacuation routes are long and complex, or if the routes become
11222 crowded with evacuees or obstructed by damage.

11223 Where horizontal evacuation out of the tsunami inundation zone is neither possible nor practical, a
11224 potential solution is vertical evacuation above rising waters into buildings and other structures with
11225 the strength and resilience necessary to resist the effects of tsunami waves. A vertical evacuation
11226 refuge is a structure or earthen mound designated as a place of refuge in the event of a tsunami,
11227 with sufficient height to elevate evacuees above the tsunami inundation depth, designed and
11228 constructed to resist tsunami load effects (see [Figure 14](#)).

⁴²¹ National Oceanic and Atmospheric Administration "[Tsunamis](#)" webpage



11229

11230

Figure 14. Tsunami Vertical Evacuation Refuge (from FEMA P-646, Figure 6-4)

11231 FEMA provides assistance for tsunami vertical evacuation refuges through HMA. A refuge is meant to
 11232 offer protection for a few hours until the danger of the tsunami waves has passed. In most areas,
 11233 damaging waves will occur within the first 12 hours after the triggering event, although the potential
 11234 for abnormally high tides and coastal flooding can last up to 24 hours. Assistance is not available for
 11235 longer-term shelters meant to provide safe, accessible and secure short-term housing and services
 11236 for disaster survivors. Shelters typically include a place to sleep along with extended food and water
 11237 supplies.

11238 **B.7.1.1. Definitions**

11239 [Appendix M of the IBC](#), *Tsunami-Generated Flood Hazards*, states that “Tsunami Vertical Evacuation
 11240 Refuge Structures located within a tsunami hazard design zone shall be planned, sited, and
 11241 developed in general accordance with the planning criteria of the FEMA P-646 guidelines.” As such,
 11242 HMA uses the following definitions from [FEMA P-646: Guidelines for Design of Structures for Vertical
 11243 Evacuation from Tsunamis, Third Edition](#) (August 2019).

- 11244 ▪ **Refuge:** An evacuation facility intended to serve as a safe haven until an imminent danger
 11245 has passed (e.g., a few hours).

- 11246 ▪ **Shelter:** An evacuation facility that is intended to provide safe, accessible and secure short-
 11247 term housing for disaster survivors, typically including a place to sleep along with extended
 11248 food and water supplies.

- 11249 ▪ **Vertical evacuation refuge:** A building, nonbuilding structure or earthen mound designated as
11250 a place of refuge in the event of a tsunami, with sufficient height to elevate evacuees above
11251 the tsunami inundation depth, designed and constructed to resist tsunami load effects in
11252 accordance with ASCE/SEI 7 (latest edition).

11253 **B.7.2. TSUNAMI VERTICAL EVACUATION REFUGE: ELIGIBILITY**

11254 **B.7.2.1. General Considerations**

11255 Tsunami events can be preceded or followed by other natural hazards. The consequences of
11256 concurrent hazard events must be addressed as part of a tsunami vertical evacuation project. The
11257 most common concurrent hazard events are earthquakes, fires, landslides and upstream river and
11258 waterway flooding.

11259 In the case of near-source-generated tsunami hazards, vertical evacuation refuges must be designed
11260 for seismic load effects in addition to tsunami load effects and must consider access issues
11261 including post-earthquake functionality of vertical circulation systems (e.g., elevators, escalators and
11262 stairs), fire resistance and suppression, and availability of emergency power.⁴²² Vertical evacuation
11263 refuge structures must be tall enough to ensure safety of those seeking refuge even if the tsunami
11264 exceeds the design event. Vertical evacuation refuge structures should be located away from the
11265 wave-breaking zone.

11266 Functions that are critical for operation as a short-term refuge must be considered. Emergency
11267 power systems must be provided with adequate fuel supply and located above the anticipated flood
11268 level or adequately protected from water damage. Similarly, communications equipment should be
11269 protected from damages due to inundation, impact and seismic activity. Basic sanitation needs and
11270 safe storage for emergency provisions such as food and water should also be addressed. Fire
11271 protection systems should be designed in accordance with applicable fire safety codes.

11272 Vertical evacuation refuge structures should also allow for ease of access and entry; compliance with
11273 ADA requirements; parking limitations; a pets policy; occupancy demands based on time of day, day
11274 of the week and season of the year to account for maximum likely occupancy; and protection of
11275 critical functions.

11276 **B.7.2.2. Eligibility Criteria**

11277 Tsunami vertical evacuation is eligible under HMGP, HMGP Post Fire and BRIC. To be eligible for
11278 HMA, vertical evacuation refuge structure applications and subapplications must include:

⁴²² A near-source-generated (local) tsunami is one that originates from a source that is close to the site of interest and arrives within one hour of the triggering event (United Nations Educational, Scientific and Cultural Organization/Intergovernmental Oceanographic Commission *Tsunami Glossary* [2019]).

- 11279 ▪ Documentation on how the size and demographics of the impacted population was
- 11280 determined for use in locating and sizing the vertical evacuation refuge structure.
- 11281 ▪ How the impacted population would travel to the vertical evacuation refuge structure.
- 11282 ▪ Estimated travel times to reach the structure.
- 11283 ▪ Cost-effectiveness analysis using an approved FEMA methodology.
- 11284 ▪ Description of the approach the subapplicant will use in preparing the operations and
- 11285 management plan.

11286 **B.7.2.2.1. Populations Served by the Tsunami Vertical Evacuation Refuge**

11287 FEMA will only consider HMGP, HMGP Post Fire and BRIC subapplications for vertical evacuation
 11288 refuge projects that identify that the population will not have time to evacuate the area and would
 11289 face an imminent threat of tsunami-related hazards. The applicant or subapplicant will identify and
 11290 quantify this population so the size of the vertical evacuation refuge can be verified during the
 11291 application review process. The size of the vertical evacuation refuge is demonstrated by risk
 11292 assessment information, such as information that is developed as part of a mitigation plan or
 11293 evacuation plan.

11294 HMGP, HMGP Post Fire and BRIC assistance is not available for general population shelters,
 11295 including recovery shelters. The emergency management measures necessary to afford protection to
 11296 thousands of occupants of large, public venues, such as stadiums or amphitheaters, are beyond the
 11297 scope of BRIC and HMGP refuge structures; therefore, community shelters are not eligible for HMGP
 11298 or BRIC assistance. Applicants and subapplicants must identify the hazard mitigation population to
 11299 be protected, otherwise the application review may be delayed or the application may be rejected.

11300 The following information provides details to help applicants and subapplicants identify, quantify and
 11301 document eligible populations needing hazard mitigation life-safety protection during tsunami
 11302 events. This section further describes categories of populations that are affected by tsunamis.

11303 At a minimum, the applicant will demonstrate consideration of the following components in
 11304 determining the eligible tsunami vertical evacuation structure population:

- 11305 ▪ Population to be protected within the area of impact by tsunami hazards.
- 11306 ▪ Warning capabilities, logistics and operation components that support basic vertical
- 11307 evacuation refuge functions.
- 11308 ▪ Travel times and routes for the population to be protected to reach the vertical evacuation
- 11309 refuge so that people are not exposed to additional risk when moving to the protected area.
- 11310 ▪ Hazard mitigation time of protection according to FEMA P-646 (minimum of eight hours and
- 11311 maximum of 24 hours).

11312 ▪ Relationship of the population to be protected by the vertical evacuation refuge to state or
11313 local emergency evacuation requirements.

11314 ▪ Effective and accessible warnings (alerts) that address the needs of individuals with
11315 disabilities and/or individuals who have limited English proficiency. See the FEMA Integrated
11316 Public Alert and Warning System webpage at [https://www.fema.gov/emergency-
11317 managers/practitioners/integrated-public-alert-warning-system](https://www.fema.gov/emergency-managers/practitioners/integrated-public-alert-warning-system) for additional information.

11318 **B.7.2.2.2. Tsunami Vertical Evacuation Refuge Sizing Criteria**

11319 The identified population directly affects the proposed vertical evacuation refuge size and is verified
11320 during the subaward review process. HMGP, HMGP Post Fire and BRIC assistance is not provided for
11321 vertical evacuation refuges that are larger than the size required to accommodate the identified
11322 population. HMGP, HMGP Post Fire and BRIC vertical evacuation refuge project applications are
11323 subject to usable floor area per occupant space requirements and size limitations identified in the
11324 design criteria noted in this section. [Table 28](#) identifies the minimum required usable floor area per
11325 occupant consistent with FEMA P-646- and ASCE/SEI 7-recognized design criteria.

11326 **Table 28: HMA-Assisted Tsunami Vertical Evacuation Refuge Minimum Usable Floor Area per**
11327 **Occupant**

Occupant Type	Minimum Usable Floor Area per Occupant* (square feet)
Standing or seated	10
Wheelchair user	10
Medical bed user	30

11328 * In addition to the square footage requirement per person, applicants and subapplicants who are
11329 modifying existing space must consider the normal functional use of the area. The type of durable
11330 medical equipment and furniture in a dual-purpose vertical evacuation refuge will determine how to
11331 calculate the net usable area. The net usable area is the available area to be used by the occupants
11332 after reducing the nonusable area from the gross area. FEMA P-646 recommendations are as
11333 follows:
11334

11335 ▪ Usable floor area is 50 percent of gross floor area in shelter areas with concentrated
11336 furnishings or fixed seating.

11337 ▪ Usable floor area is 65 percent of gross floor area for structures with unconcentrated
11338 furnishings and without fixed seating.

11339 ▪ Usable floor area is 85 percent of gross floor area for structures with open plan furnishings
11340 and without fixed seating.

11341 B.7.2.2.3. Population Impacted by Tsunamis

11342 This section provides information to help applicants and subapplicants identify and define the
11343 population impacted by tsunamis and identify who may require a vertical evacuation facility.

11344 B.7.2.2.3.1. INUNDATION MODELING AND MAPPING

11345 As a community conducts a tsunami hazard assessment, it likely will complete inundation modeling
11346 and mapping. NOAA has already completed site-specific inundation models for 75 sites.⁴²³ These
11347 forecast models can be used to identify the area likely to be inundated during a tsunami. In addition
11348 to the NOAA models, other models are available to evaluate the potential inundation area for the
11349 Maximum Considered Tsunami, which is taken as a probabilistic tsunami having a two percent
11350 chance of being exceeded in a 50-year period, which equates to a 2,475-year mean recurrence
11351 interval. FEMA P-646 tsunami modeling generally is not widely commercially available but can be
11352 performed by a number of organizations, including government laboratories (such as U.S. Geological
11353 Survey [USGS], NOAA and Los Alamos National Laboratory), some universities, and some coastal
11354 engineering consulting companies with coastal engineering expertise. ASCE/SEI 7 also includes a
11355 tsunami geodatabase for the West Coast, Hawaii and parts of Alaska. The geodatabase provides
11356 information for some design parameters such as the extent of the Tsunami Design Zone. Where
11357 design data are not available, ASCE/SEI 7 requires a probabilistic tsunami hazard analysis to be
11358 performed to develop design parameters. Additional information about how to conduct this analysis
11359 is included in ASCE/SEI 7.

11360 Demographic information can be obtained for the likely inundation area to determine the
11361 characteristics of the population that could be impacted by a tsunami. This information can be used
11362 in the planning and design processes for vertical evacuation refuges. In addition to the resident
11363 population, the potential for tourists and other nonresidents should be considered when determining
11364 the population to be served by the vertical evacuation refuge.

11365 B.7.2.2.3.2. EVACUATION MODELING

11366 Once the likely inundation area is known and the potentially affected population is quantified and
11367 characterized, evacuation models can be used to simulate evacuating the population to the shelter
11368 location by vehicle and/or on foot. Different models can simulate route selection, response time,
11369 travel speed, terrain, road networks, traffic, etc. They can also include parameters to simulate debris
11370 blockages, road damage and collapses of bridges and buildings. The evacuation models can be used
11371 to determine the estimated reduction in injuries and lives lost during the design event. The
11372 evacuation models can be run multiple times to account for different travel speeds, refuge locations
11373 and other considerations to evaluate strategic locations for the refuges, the number of people to be
11374 accommodated, and accommodations to serve various segments of the population.

⁴²³ [See the NOAA Center for Tsunami Research “Forecast Inundation Models” webpage.](#)

11375 **B.7.2.2.3.3. TSUNAMI PERIOD OF PROTECTION**

11376 As identified in FEMA P-646, the hazard mitigation time of protection for tsunami vertical evacuation
 11377 refuges is eight to 24 hours. Therefore, any ancillary equipment required to operate during an event
 11378 for the refuge must also be properly sized and protected to the same level as the refuge.

11379 **B.7.2.2.3.4. TSUNAMI DOCUMENTATION**

11380 Applicants and subapplicants must provide documentation to support the identified population for
 11381 the vertical evacuation refuge and must also submit adequate documentation in support of their risk
 11382 assessments to allow program reviewers to determine whether the proposed refuge size is
 11383 appropriate for the identified population. The documentation should be sufficiently detailed to be
 11384 verified during the review process. Applicant and subapplicant coordination with the applicable
 11385 federal, state or local agency responsible for developing emergency evacuation plans is critical.

11386 Each program identifies documentation requirements. In general, however, documents that can be
 11387 used to quantify the disproportionately impacted population, such as evacuation plans, emergency
 11388 response plans, evacuation and inundation models, and meeting notes, are acceptable. For
 11389 example, the population categories listed above may be part of the affected population identified in
 11390 an emergency evacuation plan.

11391 In all cases, the planning and operation of HMGP, HMGP Post Fire and BRIC vertical evacuation
 11392 refuges, including identifying the population to be protected, should not conflict with state and/or
 11393 local evacuation plans.

11394 HMGP, HMGP Post Fire and BRIC vertical evacuation refuge activities should not be used as a
 11395 substitute for, or as an option for individuals to ignore, local community and/or state evacuation
 11396 plans or any other law or ordinance.

11397 **B.7.2.2.3.5. TSUNAMI WARNING CAPABILITIES**

11398 In addition to design and construction criteria, an accessible and effective warning system must be
 11399 in place to notify prospective community tsunami vertical evacuation refuge occupants when they
 11400 should evacuate to the facility. Applicants and subapplicants for tsunami vertical evacuation refuge
 11401 projects must demonstrate that the population can be properly notified to allow sufficient travel time
 11402 to the refuge.

11403 **B.7.2.3. Eligible Activities and Costs**

11404 Tsunami vertical evacuation is only eligible under HMGP, HMGP Post Fire and BRIC. Eligible activities
 11405 could include:

- 11406 ▪ Construction of single-purpose facilities for tsunami vertical evacuation refuge.
- 11407 ▪ Modification of existing structures to accommodate tsunami vertical evacuation refuge.
- 11408 ▪ Construction of elevated earthen berms for tsunami vertical evacuation.

11409 To qualify for HMGP, HMGP Post Fire or BRIC assistance, a tsunami vertical evacuation structure
 11410 must be designed and constructed to meet the requirements and recommended criteria in the
 11411 relevant sections of FEMA P-646 and ASCE/SEI 7.

11412 FEMA will consider tsunami vertical evacuation mitigation activity, consisting of the retrofit or
 11413 construction of a community vertical evacuation refuge structure, to be an eligible project type for
 11414 HMGP, HMGP Post Fire and BRIC if:

- 11415 ▪ The structure provides immediate life-safety protection in the projected impact area of a
 11416 tsunami.
- 11417 ▪ The tsunami vertical evacuation project is designed and constructed to meet or exceed the
 11418 requirements and recommended criteria in FEMA P-646 and ASCE/SEI 7 and is verified by a
 11419 licensed design professional.
- 11420 ▪ The tsunami vertical evacuation refuge structure is designed and sized only to the extent
 11421 necessary for the limited population that must take refuge in the tsunami impact
 11422 strike/inundation area. The refuge structure is also designed for the limited time period that
 11423 a tsunami is occurring. Therefore, tsunami vertical evacuation refuge structures must be
 11424 sized according to the defined population that will use the facility during the event, and the
 11425 design is to accommodate this population for a limited period.
- 11426 ▪ Allowable tsunami vertical evacuation refuge structure project costs are directly related to
 11427 and necessary for the hazard mitigation purpose of providing immediate life-safety protection
 11428 by means of the structure for the limited population required to remain in the impact area
 11429 during the event.

11430 Budgets contained in applications and subapplications should include only eligible costs. [Table 29](#)
 11431 shows eligible and ineligible components of tsunami vertical evacuation refuges. This table can be
 11432 referred to when determining whether a component is an eligible cost of a tsunami vertical refuge
 11433 application.

11434 Eligible costs for HMGP, HMGP Post Fire and BRIC-assisted tsunami vertical evacuation refuge
 11435 projects are costs for project components (e.g., design, construction and project administration) that
 11436 are related directly to, and necessary for, the hazard mitigation purpose of providing immediate life-
 11437 safety protection to the limited population that must evacuate in anticipation of a tsunami impacting
 11438 the geographic area.

11439 Eligible project costs are limited to:

- 11440 ▪ **Protection by design components**, in the case where a portion of an existing building is
 11441 converted to a tsunami vertical evacuation refuge, including the exterior structural
 11442 components, foundations, floor systems, columns, beams and wall systems, as specified in
 11443 FEMA P-646, the latest editions of ASCE/SEI 7 and the IBC, and applicable local building
 11444 codes.

- 11445 ■ **Design and construction components** for tsunami vertical evacuation refuge portion only,
11446 including engineering fees, permit fees, special inspection fees and excavation.
- 11447 ■ **Required features** necessary for critical functions, including emergency power, electrical
11448 equipment, communications equipment, and ADA requirements such as accessible toilets
11449 and hand-washing stations.

11450 **Table 29: Eligible and Ineligible Components of Tsunami Vertical Evacuation Refuges**

Components	Is the component eligible?
Structural systems that directly support or protect the tsunami vertical evacuation refuge or portion of building that serves this function	Yes
Means of 24-hour access	Yes
Protection of backup mechanical, electrical, ventilation and communication equipment necessary to provide critical functions for the tsunami vertical evacuation refuge	Yes
Signage	Yes
Communications, including at least one backup means of communication	Yes
Battery-powered signal emitting device that can be used to signal the location of the facility to local emergency personnel	Yes
Construction and permit fees	Yes
Alternate source of power	Yes
First aid supplies and equipment	Yes
Fire suppression systems (sprinkler systems and fire extinguishers)	Yes
Electrical lighting and outlets required for tsunami vertical evacuation refuge or portion of building that serves that function	Yes
ADA requirements	Yes
Ventilation	Yes
Heating, ventilation and air conditioning used for required ventilation	Yes
Heating, ventilation and air conditioning not used for required ventilation	No
Accessible toilets and hand-washing stations in tsunami vertical evacuation refuge or portion of building that serves this function	Yes

Components	Is the component eligible?
Planning/engineering/architecture design fees	Yes
Engineering study to calculate undefined flood elevations and/or inundation zones	Yes
Engineering peer review	Yes
Site preparation	Yes
Inspections, including special inspections	Yes
Soil test	No
Storage room for food, water and safety equipment	Yes
Purchase of land (market value of the real property [land and structure] at the time of sale)	Yes
Fees for necessary appraisals, title searches, title insurance, property inspections, permit fees and surveys	Yes
Fees associated with the title transfer, contract review and other costs associated with conducting the real estate settlement, including recordation of the deed and deed restrictions	Yes
Property tax liens or tax obligations can be extinguished with proceeds from property sale while performing the transfer of title	Yes
Tsunami vertical evacuation refuge maintenance	No
Restroom fixtures not required by code, FEMA P-646 or ASCE/SEI 7	No
Paint on walls and ceilings of tsunami vertical evacuation refuge	No
Floor coverings – subfloors not required for life safety	No
Removal of structures from developed land	No
Kitchen cabinets, countertops and other equipment not required for life safety	No
Security cameras and emergency operations center-type equipment	No
Landscaping	No
Parking and all nonbuilding elements unless required for ADA compliance	No
Community-wide, mass notification systems	No

11451

11452 **B.7.2.4. Ineligible Activities and Costs**

11453 Project must be consistent with the criteria described in [Part 4](#).

11454 Costs associated with providing facilities for any function that is not essential for life-safety
11455 protection of occupants are not eligible. If a tsunami vertical evacuation refuge structure can fulfill its
11456 basic function of life-safety protection for users during a tsunami without a building feature or
11457 component that provides conveniences or additional comfort, costs associated with that feature or
11458 component are not eligible.

11459 **B.7.2.5. Cost-Effectiveness**

11460 Applicants and subapplicants must demonstrate that mitigation projects are cost-effective. Projects
11461 must be consistent with [Part 5](#).

11462 FEMA's BCA Toolkit currently does not have a tsunami module. Applicants and subapplicants may
11463 work with their respective FEMA regional office and the BCA Helpline to determine how the
11464 Historic/Professional Expected Damages methodology may be used and approaches similar to those
11465 used for safe rooms might be applied, or if other approaches/models are acceptable.

11466 **B.7.2.6. Feasibility and Effectiveness**

11467 Projects must be consistent with [Part 4](#). Mitigation projects assisted by HMA must be both feasible
11468 and effective at mitigating the risks of the hazard(s) for which the project was designed. A project's
11469 feasibility is demonstrated through conformance with accepted engineering practices or established
11470 codes, standards, modeling techniques, or best practices.

11471 Vertical evacuation refuge structures must be designed for tsunami load effects, including seismic-
11472 resistant and progressive collapse-resistant design features, which will require additional strength
11473 and ductility compared with normal structures.⁴²⁴ Chapter 6 of ASCE/SEI 7 provides additional,
11474 detailed information regarding tsunami loads and effects for tsunami vertical evacuation refuge
11475 structures to be incorporated into structural designs for these structures.

11476 **B.7.2.7. Environmental and Historic Preservation**

11477 All subapplications submitted to FEMA must meet the EHP criteria in [Part 4](#). All subapplications must
11478 provide the information described in [Part 6](#) so that FEMA may perform the EHP review.

⁴²⁴ FEMA P-646

11479 **B.7.3. TSUNAMI VERTICAL EVACUATION REFUGE: APPLICATION AND SUBMISSION**
 11480 **INFORMATION**

11481 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
 11482 should have a scoping narrative in accordance with [Part 6](#). Project-specific criteria are highlighted
 11483 below.

11484 FEMA may request additional information after the subapplication has been submitted to ensure all
 11485 necessary information is received. However, all information required by the regulations and the HMA
 11486 Guide must be received before an assistance decision and award or final approval can be made.

11487 The subapplication must include the following identification of the impacted population:

- 11488 ▪ Documentation on the composition, size and rationale for including each group designated
 11489 as an impacted population.
- 11490 ▪ Description of warning capabilities, logistics and operation components that support basic
 11491 refuge functions.
- 11492 ▪ Documentation that demonstrates how the designated population would reach the refuge
 11493 within the prescribed time limit after notification as required by FEMA P-646.
- 11494 ▪ If land acquisition is proposed, the current value of property and documentation
 11495 demonstrating how the market value was determined.
- 11496 ▪ For tsunami vertical evacuation refuge, description of the approach the subapplicant will use
 11497 in preparing the operations and maintenance plan, including all the following components:
 - 11498 ○ A description of the maintenance procedures.
 - 11499 ○ A brief statement about the operation of the refuge when it is in use.
 - 11500 ○ Basic information about how the refuge will be used, including how use is initiated, the
 11501 warning system, and basic procedures for opening refuge to the public.
 - 11502 ○ Key components of the refuge maintenance procedures.
 - 11503 ○ The office that will be responsible for the operations and management of the refuge.
 - 11504 ○ Assurance that the operations and management plan will be developed and completed
 11505 before project closeout.

11506 **B.7.3.1. Property Location**

11507 All subapplications should include latitude/longitude to the nearest sixth decimal place, site
 11508 photographs, site maps and project plans and specifications.

11509 Property information should also include the estimated furthest distance from the refuge to the
 11510 population it is intended to serve and travel times by car and foot to reach the refuge. Travel times
 11511 should account for travel within the structure itself to reach the top.

11512 **B.7.3.2. Clear Title**

11513 If property acquisition is proposed, the subrecipient must conduct a title search for the property it
 11514 plans to acquire. The purpose of the title search is to ensure the owner is the sole and actual
 11515 titleholder to the property, to identify other persons with a property interest if the owner is not the
 11516 sole and actual titleholder and to ensure the title is clear (i.e., no mortgages or liens are outstanding
 11517 on the sale of the property).

11518 Prior to the purchase of the property, the subapplicant should document the process they will use to
 11519 gain the necessary state and local approvals to construct a refuge.

11520 Other title-related requirements are as follows:

- 11521 ▪ A title insurance policy demonstrating the clear title must be obtained for each approved
 11522 property that will be acquired.
- 11523 ▪ A physical site inspection for each property must be conducted to verify there are no physical
 11524 encumbrances to the property (a site survey may be necessary to clearly establish property
 11525 boundaries).
- 11526 ▪ The property title must be transferred by a warranty deed in all jurisdictions that recognize
 11527 warranty deeds.
- 11528 ▪ The subrecipient must take possession at settlement.
- 11529 ▪ The subrecipient must record the deed at the same time as settlement along with any
 11530 program deed restrictions.
- 11531 ▪ The deed transferring title to the property and the program deed restrictions will be recorded
 11532 according to state law and within 14 calendar days after the settlement.

11533 **B.7.3.3. Budget**

11534 All subapplications should include a line-item breakdown of all anticipated costs. See [Part 6](#) for more
 11535 information.

11536 Vertical evacuation structures require more strength and ductility than “typical” structures to ensure
 11537 they will function after a seismic event and potential tsunami inundation. Consequently, it is
 11538 expected that the cost to construct a tsunami vertical evacuation refuge will be higher than for
 11539 standard structures. According to FEMA P-646, the cost to construct a vertical evacuation structure
 11540 is likely to be 10 to 20 percent greater than a standard structure to account for the required seismic-

11541 and tsunami-resistant design features. However, relative costs will depend on geographic location,
11542 site-specific features and the specific hazard conditions.

11543 Applications for vertical evacuation refuge projects must include detailed line-item costs in the
11544 project budgets. Well-documented project budgets contain quantities, unit costs and a source for
11545 each unit cost. In contrast, lump-sum budgets do not provide quantities and unit costs required to
11546 evaluate the accuracy of the project budget. Lump-sum estimates are not acceptable.

11547 Under HMGP, HMGP Post Fire and BRIC, project budgets include unit costs related to the proposed
11548 square footage of the protected area or areas of the vertical evacuation structure. Unit costs may
11549 also be related to the protected population (occupants) of the vertical evacuation structure.

11550 Subapplicants may apply for subrecipient management costs to cover administrative costs.
11551 Management costs must be included in the subapplication budget as a separate line item. More
11552 information about the requirements for management cost requests can be found in [Part 13](#).

11553 **B.7.3.3.1. Value of the Property**

11554 For property identified for acquisition, the subrecipient shall establish and document a property
11555 value based on market value, which is defined as:

11556 The amount in cash, or on terms reasonably equivalent to cash, for which in all probability
11557 the property would have sold on the effective date of the valuation, after a reasonable
11558 exposure time on the open competitive market, from a willing and reasonably
11559 knowledgeable seller to a willing and reasonably knowledgeable buyer, with neither acting
11560 under any compulsion to buy or sell, giving due consideration to all available economic uses
11561 of the property at the time of the valuation.

11562 The current market value reflects the property value at the time of purchase.

11563 The following appraisal methodology must be used to determine property value:

- 11564 ▪ The appraisal must be conducted by an appraiser in accordance with the Uniform Standards of
11565 Professional Appraisal Practice.
- 11566 ▪ The appraiser must comply with relevant state laws and requirements and have the appropriate
11567 certification, qualifications and competencies based on the type of property being appraised.

11568 **B.7.4. TSUNAMI VERTICAL EVACUATION REFUGE: SUBAWARD IMPLEMENTATION**

11569 The following are basic steps in implementing an approved tsunami vertical evacuation refuge
11570 project:

- 11571 1. Pre-construction (acquire land, if applicable, or obtain rights to use existing
11572 buildings/infrastructure for development of a tsunami vertical evacuation structure; carry out

11573 design process; seek technical consultant; prepare cost estimate; obtain construction permits
 11574 including required environmental permits; hire construction manager/contractor).

11575 2. Hold project kickoff meeting.

11576 3. Prepare site for construction.

11577 4. Install new foundations or improve of existing foundations.

11578 5. Construct new structure or modify existing structure in accordance with designs.

11579 6. Pass inspections.

11580 7. Achieve substantial completion of construction.

11581 8. Obtain certificate of occupancy.

11582 Post-award monitoring helps ensure that subapplicants/subrecipients are achieving the objectives of
 11583 the federal award consistent with the performance goals and milestones described in the subaward.

11584 To assist the recipient in monitoring tsunami vertical evacuation refuge projects, the following
 11585 milestone information or events should be included in Quarterly Progress Reports:

11586 ▪ If the subrecipient is acquiring contract support, the subrecipient should report when the
 11587 request for proposal is completed, when the contract is out for bid, when the bid period
 11588 closes, when proposals are reviewed, when the contractor is selected and the date of the
 11589 kickoff meeting.

11590 ▪ Describe the current status including a summary of:

11591 ○ Recent progress and planned work.

11592 ○ Risks identified or changes from the milestones/deliverables submitted with the scope of
 11593 work (e.g., financial concerns, coordination issues with state or local governments and
 11594 utilities, project management or contracting issues, legal disputes, and significant
 11595 changes impacting construction activities or timelines such as delays due to weather,
 11596 materials, procurement or labor issues).

11597 ○ When construction has started, is substantially complete or completed.

11598 ▪ If property is purchased, the report should provide property address, purchase price and
 11599 date.

11600 ▪ Any other milestones that have been identified in the subapplication or agreed to or are
 11601 required by the recipient.

11602 All budget and scope changes must have prior FEMA approval consistent with [Part 8](#). Because the
 11603 final design may not be completed prior to award, once the project is awarded, the design must be
 11604 finalized by a licensed professional engineer. If the scope of work or cost estimate change because

11605 of completing the final design or to address permitting requirements, prior approval from FEMA is
 11606 required.

11607 **B.7.5. TSUNAMI VERTICAL EVACUATION REFUGE: CLOSEOUT**

11608 Recipients and subrecipients must closeout projects in a timely manner consistent with [Part 9](#).

11609 In addition to the typical HMA program closeout procedures, closeout of tsunami vertical evacuation
 11610 projects generally includes:

- 11611 ▪ Photos of the project site before and after construction.
- 11612 ▪ Latitude/longitude of the project site to the nearest sixth decimal place.
- 11613 ▪ A vicinity map, map of the SFHA if applicable, and Tsunami Design Zone map showing the
 11614 extent of inundation by a Maximum Considered Tsunami, as defined by Chapter 6 of
 11615 ASCE/SEI 7.
- 11616 ▪ Certification from a licensed professional engineer or architect that the vertical evacuation
 11617 refuge structure and all items that contribute to its operation have been constructed to meet
 11618 or exceed FEMA P-646 and ASCE/SEI 7 requirements.
- 11619 ▪ Any structural and nonstructural design peer review reports as required by the latest editions
 11620 of FEMA P-646 and ASCE/SEI 7.
 - 11621 ○ The peer review purpose is to have another person review the design and construction
 11622 documents of the safe room to ensure it meets FEMA design standards. If issues are
 11623 found in the design of the tsunami vertical evacuation refuge, it can be addressed and
 11624 resolved.
 - 11625 ○ The peer review must be completed by an independent licensed professional engineer or
 11626 architect. It cannot be the same design professional providing the design oversight of the
 11627 tsunami vertical evacuation refuge.
 - 11628 ○ The peer reviewer will review the structural design, occupancy, means of egress, access
 11629 and accessibility, fire safety and essential features of the tsunami vertical evacuation
 11630 refuge.
- 11631 ▪ An operations and maintenance plan that includes, at a minimum:
 - 11632 ○ How the vertical evacuation refuge will open after a warning.
 - 11633 ○ How the vertical evacuation refuge will operate, including a plan for pets.
 - 11634 ○ Type and quantity of stocked supplies and where they will be stored.

- 11635 ○ How people will leave the refuge when the threat is over.
- 11636 ○ A regular maintenance plan.
- 11637 ■ Information demonstrating that the completed project will be maintained to achieve the
11638 proposed hazard mitigation.
- 11639 ■ A description of the post-closeout maintenance activities that will be undertaken to maintain
11640 the refuge.
- 11641 ■ The period of time the community is committing to maintain the refuge, which must be
11642 consistent with the project useful life in the BCA.
- 11643 ■ The department and job position that will be responsible for the refuge.
- 11644 ■ Estimated costs for annual maintenance of the refuge.
- 11645 ■ The schedule for completion of the maintenance activities.

11646 **B.7.6. TSUNAMI VERTICAL EVACUATION REFUGE: RESOURCES**



Tsunami Vertical Evacuation Refuge Resources

- 11648 ■ FEMA BCA webpage: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>
- 11649 ■ EHP review job aids: [https://www.fema.gov/grants/guidance-tools/environmental-](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
11650 [historic/preparation-resources](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
- 11651 ■ Participation in the NFIP: [https://www.fema.gov/participation-national-flood-insurance-](https://www.fema.gov/participation-national-flood-insurance-program)
11652 [program](https://www.fema.gov/participation-national-flood-insurance-program)
- 11653 ■ FEMA P-646, *Guidelines for Design of Structures for Vertical Evacuation from Tsunamis*:
11654 [https://www.fema.gov/sites/default/files/2020-08/fema_earthquakes_guidelines-for-](https://www.fema.gov/sites/default/files/2020-08/fema_earthquakes_guidelines-for-design-of-structures-for-vertical-evacuation-from-tsunamis-fema-p-646.pdf)
11655 [design-of-structures-for-vertical-evacuation-from-tsunamis-fema-p-646.pdf](https://www.fema.gov/sites/default/files/2020-08/fema_earthquakes_guidelines-for-design-of-structures-for-vertical-evacuation-from-tsunamis-fema-p-646.pdf)
- 11656 ■ ASCE/SEI 7 (latest published edition): [https://www.asce.org/communities/institutes-and-](https://www.asce.org/communities/institutes-and-technical-groups/structural-engineering-institute/asce-7-and-sei-standards/)
11657 [technical-groups/structural-engineering-institute/asce-7-and-sei-standards/](https://www.asce.org/communities/institutes-and-technical-groups/structural-engineering-institute/asce-7-and-sei-standards/)
- 11658 ■ Tsunami geodatabase: <https://asce7tsunami.online/>

11659 **B.8. Safe Room**

11660 **B.8.1. SAFE ROOM: OVERVIEW**

11661 HMGP, HMGP Post Fire and BRIC may provide assistance for residential and community safe rooms
11662 for tornadoes and hurricanes. Safe rooms provide immediate life-safety protection for a limited
11663 population that cannot evacuate out of harm’s way before an event. Safe room projects include
11664 retrofits of existing facilities and new safe room construction. Assistance can be used for both single-
11665 and multi-use facilities.

11666 BRIC, HMGP, and HMGP Post Fire assistance may only be used for safe room projects designed to
11667 achieve “near-absolute protection” as described in the latest published edition of [FEMA P-361: Safe
11668 Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe Rooms, Fourth
11669 Edition](#) (April 2021). Any lower threshold of protection exposes safe room occupants to a greater
11670 degree of risk than is acceptable. [FEMA P-320: Taking Shelter from the Storm: Building or Installing
11671 a Safe Room for Your Home, Fifth Edition](#) (March 2021), provides guidance and prescriptive plans
11672 for residential safe rooms, but refers to FEMA P-361 for the criteria. Therefore, the Guide uses FEMA
11673 P-361 as the basis for safe room design requirements.

11674 Safe rooms may also be designated to serve as recovery shelters, but only features required for the
11675 safe room functionality will be eligible for BRIC, HMGP or HMGP Post Fire assistance. BRIC, HMGP
11676 and HMGP Post Fire safe room assistance is not available for facilities that will solely be used as
11677 general population shelters, including evacuation and recovery shelters. Safe rooms and general
11678 population shelters are different in two ways. First, general population shelters are generally not
11679 intended to withstand extreme wind events and therefore do not provide near-absolute protection
11680 consistent with residential and community safe room criteria in FEMA P-361. Also, general
11681 population shelters are intended to provide longer-term services and housing for people who have
11682 left the anticipated impact area after a disaster event; safe rooms are intended to provide protection
11683 for a minimum of two hours in tornado events and 24 hours in hurricane events.

11684 The planning and operation of BRIC, HMGP and HMGP Post Fire safe rooms should not conflict with
11685 state and/or local evacuation plans. BRIC, HMGP and HMGP Post Fire safe room projects should not
11686 be used as a substitute for, or as an option for individuals to ignore, local community and/or state
11687 evacuation plans or any other law or ordinance.

11688 **B.8.1.1. Hurricane Safe Room**

11689 When there is sufficient warning time in extreme wind events, such as hurricanes, the general
11690 population can be expected to leave the area of anticipated immediate impact and seek shelter
11691 outside of the impacted area. Therefore, for hurricane threats, FEMA considers providing assistance
11692 only for safe room projects designed for populations the state, local community and/or other
11693 authorities having jurisdiction indicates cannot remove themselves from harm’s way before a
11694 hurricane that is anticipated to make landfall. This should normally be limited to first responders and
11695 continuity of operations essential staff; in rare geographic circumstances (such as island states or

11696 territories where vehicle access to the continental U.S. by roadway is not available) it may include
 11697 populations that cannot evacuate. The applicant and subapplicant must provide a basis for the
 11698 intended population.

11699 **B.8.1.2. Tornado Safe Room**

11700 In extreme wind events, such as tornadoes, there may be little or no warning to allow the general
 11701 population to leave the area of immediate impact, and they must, therefore, seek immediate life-
 11702 safety protection. Little or no warning limits the potential occupancy of tornado residential and
 11703 community safe rooms to the people who are on-site or nearby.

11704 **B.8.2. SAFE ROOM: ELIGIBILITY**

11705 FEMA requires applicants and subapplicants to design and site all hurricane or tornado saferoom
 11706 projects in accordance with FEMA Funding Criteria in the latest publication of FEMA P-361 and latest
 11707 edition of [ICC 500: ICC/National Storm Shelter Association Standard for the Design and](#)
 11708 [Construction of Storm Shelters](#) as minimum design criteria. The scope of work narrative should
 11709 clearly state the hurricane or tornado saferoom will be designed to meet or exceed FEMA Funding
 11710 Criteria, which are more conservative than code and standard minimum requirements provided in
 11711 [FEMA P-361](#).

11712 **B.8.2.1. Eligibility Criteria**

11713 FEMA will consider an extreme wind event mitigation activity, consisting of the retrofit or construction
 11714 of a residential or community safe room (single- or multi-use), to be an eligible project type for HMGP,
 11715 HMGP Post Fire and BRIC if:

- 11716 ▪ The safe room project provides immediate life-safety protection in the projected impact area
 11717 of a hurricane and/or tornado.

- 11718 ▪ The safe room project is designed and constructed to meet or exceed the requirements in
 11719 the latest published edition of the ICC 500 and the FEMA Funding Criteria in the latest
 11720 published edition of FEMA P-361 (based on award agreement date) and is verified by a
 11721 licensed design professional.

- 11722 ▪ The safe room project is not sited in FEMA-designated SFHAs, or if the saferoom project is
 11723 located in a FEMA-designated SFHA area or the 500-year flood hazard area, but the 8-Step
 11724 Decision Process was successfully completed for [Executive Order \(EO\) 11988, Floodplain](#)
 11725 [Management](#) (May 24, 1977) as amended by [EO 13690](#), as provided by 44 CFR § 9.6 (i.e.,
 11726 the consultation with the local and state emergency management officials led to the

11727 conclusion that there is no other feasible option than having the safe room project sited in an
 11728 SFHA or the 500-year flood hazard area, as outlined in FEMA P-361).⁴²⁵

11729 ○ The lowest floor of residential tornado safe rooms must be elevated to the minimum
 11730 elevation required by the authority having jurisdiction or 1 foot above the Base Flood
 11731 Elevation, except where installed in an existing host building.

11732 ■ The safe room is designed and sized only to the extent necessary for the limited population
 11733 that must remain in the impact strike area during an extreme wind event.

11734 ■ The safe room is designed to accommodate occupants for a minimum duration time frame
 11735 as required in [FEMA P-361](#). Safe rooms must be sized according to the defined population
 11736 that will use the facility during a storm event.

11737 ■ Project costs are directly related to and necessary for the hazard mitigation purpose of
 11738 providing immediate life-safety protection through the structure and the building envelope for
 11739 the limited population required to remain in the impact area during an extreme wind event.

11740 ■ For community saferooms, the subapplicant develops an operations and maintenance plan.
 11741 At a minimum, the process to include operations and maintenance plans includes the
 11742 following:

11743 ○ Descriptive statement of the operations and maintenance plan at the time of the
 11744 application along with a Statement of Assurances that the operations and maintenance
 11745 plan will be developed during project implementation.

11746 ○ Final operations and maintenance plan prior to project closeout.

11747 ■ The safe room project demonstrates cost-effectiveness.

11748 ■ The safe room project complies with all relevant EHP regulations.

11749 ■ The safe room project adheres to other program conditions as described in the HMA Guide.

11750 **B.8.2.2. Eligible Activity**

11751 [Table 30](#) highlights eligible safe room activities.

⁴²⁵ FEMA P-361

11752 **Table 30: Eligible Safe Room Activities**

<i>Eligible Activities</i>	HMGP	HMGP Post Fire	BRIC	FMA
Hurricane residential safe room	Yes	Yes	Yes	No
Hurricane community safe room	Yes	Yes	Yes	No
Tornado residential safe room	Yes	Yes	Yes	No
Tornado community safe room	Yes	Yes	Yes	No

11753 **B.8.2.2.1. Populations Served by the Safe Room**

11754 FEMA will only consider subapplications for safe room projects that identify the safe room population
 11755 that must remain behind or will not have time to leave and faces an imminent threat of a tornado,
 11756 hurricane or both. The applicant or subapplicant will identify and quantify this population so the safe
 11757 room’s size can be verified during the subapplication review process. The size of the safe room is
 11758 demonstrated by risk assessment information, such as information that is developed as part of a
 11759 mitigation plan or evacuation plan.

11760 The following information provides details to help applicants and subapplicants identify, quantify and
 11761 document eligible populations needing hazard mitigation life-safety protection during extreme wind
 11762 events. This section further describes categories of populations that are affected by tornadoes,
 11763 hurricanes or both.

11764 At a minimum, the applicant will demonstrate consideration of the following components in
 11765 determining the eligible safe room population:

- 11766 ▪ Population to be protected within the area of impact by tornado and/or hurricane hazards.
- 11767 ▪ Warning capabilities, logistics and operation components that support basic safe room
 11768 functions.
- 11769 ▪ Travel times and routes for the population to be protected to reach the safe room so that
 11770 people are not exposed to additional risk when moving to the protected area.
- 11771 ▪ Hazard mitigation time of protection: minimum of two hours for tornadoes and 24 hours for
 11772 hurricanes.
- 11773 ▪ Relationship of the population to be protected by the safe room to state or local emergency
 11774 evacuation requirements.
- 11775 ▪ Effective and accessible warnings (alerts) that address the needs of individuals with access
 11776 and functional needs and/or individuals who have limited English proficiency.

11777 Community safe rooms are intended for a limited population, but the criteria for tornadoes and
11778 hurricanes differ in certain applications. When the limited population for tornadoes and hurricanes is
11779 identified, the respective mitigation activities should be considered separately and then combined (if
11780 both exist) using the most conservative requirements between the two. A combined safe room will
11781 have to comply with the larger square footage area per person and longer protection and with the
11782 more stringent debris impact protection. Characteristics such as the size of the targeted area, the
11783 warning time before the impact, and the duration of the storm affect the population requiring
11784 protection differently; therefore, the impacted population must be determined for each type of event.

11785 Applicants and subapplicants must provide documentation to support the identified population for
11786 the safe room and must also submit adequate documentation in support of their risk assessments to
11787 allow grant program reviewers to determine whether the proposed safe room size is appropriate for
11788 the identified population. The documentation should be sufficiently detailed to be verified during the
11789 subapplication review process. Applicant and subapplicant coordination with the applicable federal,
11790 state or local (if applicable) agency responsible for developing emergency action plans is critical. In
11791 general, emergency response plans, evacuation plans, area maps, building construction drawings
11792 and meeting notes that can be used to quantify the population are acceptable. In addition, local or
11793 federally recognized tribal mitigation plans are required to describe the susceptibility of the
11794 community (especially high-risk populations) and structures, and they may also be sources for this
11795 information. The following sections identify issues to consider when applying for assistance for a
11796 hurricane, tornado or combined hazard community safe room. Applicants and subapplicants should
11797 select the most appropriate population for their safe room project using the steps described in the
11798 sections that follow.

11799 **B.8.2.2.2. Population Impacted by Hurricanes**

11800 Determining the hurricane safe room population depends on the assumptions used in the
11801 evacuation or emergency response plans and policies being administered by federal, state and local
11802 emergency management organizations. Therefore, applicants and subapplicants are encouraged to
11803 coordinate with the relevant agency in the jurisdiction that developed the plans. In addition, local or
11804 federally recognized tribal mitigation plans are required to include a risk assessment that defines the
11805 hazard characteristics within an area and the specific needs for the affected population. Evacuation
11806 plans are likely to be more specific in terms of population, but the risk assessment in a community's
11807 existing mitigation plan may also be a source for this information. Documentation to support the
11808 determination of the impacted population may be directly related to the planning tools mentioned
11809 above and should be included in the subapplication.

11810 **B.8.2.2.2.1. HURRICANE POPULATION CATEGORIES**

11811 Generally, two broad categories of potential hurricane safe room occupants may be identified as part
11812 of the limited population in need of life-safety protection: (1) first responders and continuity of
11813 operations essential staff and, in rare circumstances, (2) populations on island states or territories
11814 where vehicle access to the continental United States by a roadway is not available.

11815 The impacted population should be accommodated within the safe room for a minimum of 24 hours
 11816 (the [FEMA P-361](#) minimum design occupancy time for hurricane safe rooms). Applicants and
 11817 subapplicants are encouraged to use verifiable information, such as emergency evacuation plans
 11818 and local emergency management plans (or other applicable sources), to identify potential safe room
 11819 occupants from the categories listed below.

11820 **Category 1: First Responders, Critical and Essential Services Personnel, and Facility Occupants**

11821 The civilian personnel of emergency response services, also known as first responders, may be
 11822 required to remain in harm’s way. First responders include but are not limited to fire and police
 11823 department personnel, rescue squads, emergency operations center personnel, emergency medical
 11824 and ambulance service providers, search and rescue teams, and similar personnel whom a local
 11825 community may depend upon for a successful response to an extreme wind event.

11826 In many cases, other critical services personnel may be required to remain in harm’s way to facilitate
 11827 the continued operation of certain critical facilities, including material storage facilities,
 11828 communications and data centers, and others that a local community may depend on for a
 11829 successful response to an extreme wind event.

11830 **Category 2: Individuals Who Cannot Evacuate**

11831 This category may include occupants of facilities, such as patients in hospitals, residents of long-
 11832 term care facilities and other occupants for which evacuation would be detrimental to their well-
 11833 being. This category could also include prison populations that are unable to be evacuated safely,
 11834 populations on island states or territories where vehicle access to the continental U.S. by a roadway
 11835 is not available and who do not have the option to evacuate, or other vulnerable populations that
 11836 cannot be easily moved.

11837 **B.8.2.2.2. HURRICANE TRAVEL TIME CONSIDERATIONS**

11838 The issues to consider in estimating travel time to the safe room facility include local emergency
 11839 management and law enforcement requirements, mandatory evacuations, evacuation times from
 11840 the anticipated area of impact, and any other plans that affect the movement of at-risk populations.
 11841 Further information is provided in FEMA P-361.

11842 Occupants of one- and two-family dwellings with a residential safe room that meets the siting and
 11843 elevation requirements in FEMA P-361 are assumed to use that room and require no evacuation and
 11844 minimal travel time unless evacuation has been deemed mandatory by the authority having
 11845 jurisdiction.

11846 **B.8.2.2.3. HURRICANE PERIOD OF PROTECTION**

11847 As identified in [FEMA P-361](#), the hazard mitigation time of protection for safe rooms is a minimum of
 11848 24 hours for hurricane events. Therefore, any ancillary equipment required to operate during an

11849 event for the safe room must also be properly sized and protected to the same level as the safe
 11850 room.

11851 **B.8.2.2.4. COORDINATION WITH STATE/LOCAL/TRIBAL/TERRITORIAL EVACUATION PLANS**

11852 In all cases, planning and operation safe rooms, including the identification of the population to be
 11853 protected, should not conflict with state, local, tribal and/or territorial evacuation plans.

11854 Safe room activities should not be used as a substitute or as an option for individuals to ignore state,
 11855 local, tribal and/or territorial evacuation plans or any other law or ordinance.

11856 **B.8.2.2.5. HURRICANE WARNING CAPABILITIES**

11857 In addition to design and construction criteria, an accessible and effective warning system must be
 11858 in place to notify prospective community safe room occupants when they should evacuate to the
 11859 safe room facility. Applicants and subapplicants for community safe room projects must demonstrate
 11860 that the population can be properly notified to allow sufficient travel time to the community safe
 11861 room.

11862 **B.8.2.2.3. Population Impacted by Tornadoes**

11863 Populations impacted by tornadoes are generally limited to the family or group of families who live in
 11864 the dwelling or dwellings served by the safe room, workers or students who have access to a safe
 11865 room at their place of business or school and individuals who have access to an on-site community
 11866 safe room. Because of the short period between tornado identification and impact, these at-risk
 11867 populations must be close to the safe room to benefit from it.

11868 Tornado safe room populations are determined based on limited warning times (i.e., minutes) and
 11869 the maximum reasonable travel time for potential safe room occupants to reach the safety of the
 11870 facility. The populations that cannot reach the safe room within a reasonable time are not
 11871 considered as potential occupants of the safe room.

11872 The following two aspects of higher risk should be considered when identifying and quantifying the
 11873 population impacted by a tornado:

- 11874 ▪ The physical characteristics of the built environment (buildings or other structures) in which
 11875 the population resides. Because buildings differ in their susceptibility to damage from a
 11876 tornado, building occupants are exposed to varying risks of injury or death. Individuals living
 11877 in nonengineered, older and/or manufactured housing are more susceptible to catastrophic
 11878 damage from a tornado.

- 11879 ▪ The ability of the population to mobilize to the safe room during a tornado, regardless of
 11880 where they are located. Children and adults with disabilities and others with access and
 11881 functional needs may require a greater level of assistance, time to mobilize and attention
 11882 during an emergency. These considerations should be factored into planning.

11883 **B.8.2.2.3.1. TORNADO TRAVEL TIME CONSIDERATIONS**

11884 The most effective tornado safe rooms minimize occupant travel time. Consequently, on-site
 11885 community safe rooms, built either as integral parts of a building or as separate structures, offer the
 11886 greatest level of protection to occupants. Community safe rooms in hospitals, schools, long-term
 11887 care centers and other facilities that house highly susceptible populations are the most successful in
 11888 minimizing the risks. These safe rooms may be designed to serve the community-at-large in addition
 11889 to on-site residents. In such cases, the population of the safe room is limited by the proximity of
 11890 potential occupants to the safe room, which is defined by the maximum allowed travel time and/or
 11891 the maximum distance to the safe room.

11892 The distance from the safe room for the at-risk population is based on a maximum walking travel
 11893 time of five minutes, or 0.25 miles, or a maximum driving travel distance of approximately 0.5 miles.
 11894 When considering a single- or multi-use community safe room, the five-minute walk time or the
 11895 equivalent 0.5-mile driving distance must be calculated by the actual travel route or pathway that a
 11896 pedestrian or a driver will be required to follow. Where intended occupants are coming from nearby
 11897 buildings (e.g., school or hospital campuses with multiple buildings), a maximum distance of 1,000
 11898 feet between occupant-source buildings and the safe room entrance is recommended to allow time
 11899 for egressing the occupant-source buildings. A 1,000-foot maximum distance from not fewer than
 11900 one exterior door of each building to a door of the shelter serving that building may be required by
 11901 building code for newly constructed safe rooms in some areas.

11902 The pathway should not be restricted, bottlenecked or obstructed by barriers such as multilane
 11903 highways, railroad tracks, bridges or similar facilities or by topographic features. Traffic congestion
 11904 (including parking constraints) during the movement of the potentially affected population to the
 11905 safe room once a storm watch/warning notification is issued should be considered when defining
 11906 the limited population for the community safe room. In either case, whether walking or driving,
 11907 prospective safe room occupants must be able to safely reach the facility within five minutes of
 11908 receiving a tornado warning or notice to seek shelter.

11909 **B.8.2.2.3.2. TORNADO PERIOD OF PROTECTION**

11910 As identified in [FEMA P-361](#), the occupancy duration in a tornado safe room is a minimum of two
 11911 hours for a tornado event. Therefore, any ancillary equipment required to operate during an event for
 11912 the safe room must also be properly sized and protected to the same level as the safe room.

11913 **B.8.2.2.4. Safe Room Sizing Criteria**

11914 The identified population directly affects the proposed safe room design size and is verified during
 11915 the subapplicant review process. HMGP, HMGP Post Fire and BRIC assistance is provided only for
 11916 the minimum size required to accommodate the identified population; costs for space that exceed
 11917 the allowable size must be fully funded by non-FEMA sources and cannot be counted toward the
 11918 federal cost-share of the award. HMA program safe room project subapplications are subject to
 11919 usable floor area per occupant space requirements and size limitations identified in the design

11920 criteria noted in this section. [Table 31](#) identifies the minimum required usable floor area per safe
 11921 room occupant consistent with FEMA-recognized design criteria.

11922 **Table 31: HMA Safe Room Minimum Usable Floor Area per Safe Room Occupant⁴²⁶**

Types of Safe Room	Occupant	Minimum Usable Floor Area per Occupant* (square feet)
Tornado community safe room	Standing or seated	5
	Wheelchair user	10
	Relocated to a bed or stretcher	30
Hurricane community safe room	Standing or seated	20
	Wheelchair user	20
	Relocated to a bed or stretcher	40
Tornado residential safe room	One- and two-family dwelling	3
	Other residential	5
Hurricane residential safe room	One- and two-family dwelling	7
	Other residential	10

11923 *For community safe rooms, at least one wheelchair user-sized space is required for every 200
 11924 occupants or portion thereof.

11925 In addition to the square footage requirement per person, applicants and subapplicants must
 11926 consider the normal functional use of the area. The type of durable medical equipment and furniture
 11927 in the dual-purpose safe room will determine how to calculate the net usable area, which is the
 11928 available area to be used by the occupants after reducing the nonusable area from the gross area.

11929 For example, a community may decide to build a multi-use facility that includes a tornado safe room
 11930 function in a community center. The new facility may include an assembly or multipurpose room that
 11931 has 1,185 square feet. To use the space as a community tornado safe room, the gross square
 11932 footage must be reduced to account for egress circulation, partitions, interior columns, furnishings,
 11933 finishes, equipment and other features. The calculation may be exact or estimated using the
 11934 methodology in FEMA P-361. For this example, the area is considered an open floor plan, and only
 11935 85 percent of the gross area can be considered net usable area for the occupants seeking shelter.

⁴²⁶ Based on criteria from FEMA P-361 published April 2021. Verify requirements in most recently published edition of FEMA P-361.

11936 Using 85 percent of the gross square footage as usable square footage, the 1,185 square feet is
 11937 reduced to 1,007 usable square feet:

11938
$$1,185(0.85) = 1,007 \text{ square feet}$$

11939 According to [FEMA P-361](#) design criteria, a minimum of 5 square feet per safe room occupant must
 11940 be provided in a tornado community safe room (see [Table 31](#)). In this example, safe room designers
 11941 must also account for the use of durable medical equipment (e.g., wheelchairs, walkers or hospital
 11942 beds).

11943 A tornado community safe room should be sized to accommodate a minimum of one wheelchair
 11944 space (at 10 square feet) for every 200 occupants or portion thereof. Therefore, the 1,007-square-
 11945 foot usable floor area would provide enough space to protect 200 occupants (see [Table 32](#)) and
 11946 would be eligible for HMGP, HMGP Post Fire and BRIC assistance. It would not be reasonable for an
 11947 application in this example to include a request for usable square footage of 2,000 square feet
 11948 because that amount of space has not been demonstrated as being necessary for an identified at-
 11949 risk population of 200 occupants.

11950 **Table 32: Example Community Safe Room Size**

Occupants	Required Square Feet per Person	Total Square Footage of Usable Floor Area
199 occupants	5	995
One occupant in wheelchair	10	10
Total 200 occupants	-	1,005

11951
 11952 Applicants and subapplicants should refer to FEMA P-361 for further information on sizing criteria.

11953 **B.8.2.2.5. Flood Hazard Siting and Elevation Limitations**

11954 To be considered for assistance, HMGP, HMGP Post Fire and BRIC safe room projects must include
 11955 maps or other documentation that identify the project location relative to the floodplain and meet
 11956 FEMA Funding Criteria, flood hazard siting limitations and elevation requirements in FEMA P-361.

11957 Except in special circumstances, safe rooms should not be sited in FEMA-designated SFHAs unless
 11958 consultation with state and local emergency management officials concludes there is no other
 11959 feasible option. If it is not possible to locate a safe room outside of the SFHA, precautions must be
 11960 taken to ensure the safety and well-being of anyone using the safe room. If a saferoom is sited in a
 11961 SFHA, there are additional design and siting requirements, such as elevation, that must be
 11962 addressed. See the latest published edition of [FEMA P-361](#) for design and siting criteria.

11963 **B.8.2.2.6. Americans with Disabilities Act Compliance for Community Safe Rooms**

11964 The needs of the whole community requiring safe room space must be considered. Safe room
 11965 construction should integrate considerations for:

- 11966 ▪ Proximity of location to affected populations.
- 11967 ▪ The size of the safe room.
- 11968 ▪ Egress/ingress of the safe room to accommodate the affected populations.
- 11969 ▪ Ensuring facilities within the safe room comply with ADA regulations, such as toilets or hand-
 11970 washing stations.
- 11971 ▪ Accessible alerts and warnings.
- 11972 ▪ Appropriate access for persons with disabilities, which must be provided in accordance with
 11973 all federal, state and local ADA requirements and ordinances.

11974 Safe room subrecipients should be aware that accessibility provisions of the applicable code may
 11975 exceed the minimum requirements of the ADA. For example, provisions for accessible routes
 11976 connecting multistory buildings in section 1104.4 of the 2021 IBC are more extensive than similar
 11977 criteria in the ADA.

11978 **B.8.2.3. Operations and Maintenance Plans for Community Safe Rooms**

11979 To be considered for assistance, HMGP, HMGP Post Fire and BRIC community safe room project
 11980 subapplications must include a written statement acknowledging the requested community safe
 11981 room will be operated and maintained in a manner that achieves the proposed hazard mitigation.
 11982 FEMA will only consider operations and maintenance plans that have considered the guidance in
 11983 FEMA P-361. Operations and maintenance plans are not required for residential safe rooms.

11984 Community safe rooms are built and operated to provide immediate life-safety protection during
 11985 extreme wind hazards. To achieve this purpose, community safe rooms must be built to the design
 11986 criteria and be operated and maintained so that they are able to provide intended occupants with
 11987 the timely protection and services that they need. Subapplicants must provide an operations and
 11988 maintenance plan Statement of Assurances with the safe room project subapplication
 11989 acknowledging the requested community safe rooms will be operated and maintained in a manner
 11990 that achieves the proposed hazard mitigation.

11991 The steps in meeting the operations and maintenance plan requirements are as follows:

- 11992 1. The subapplicant develops a description of the operations and maintenance plan that includes
 11993 an assurance that the plan will be developed during project implementation and includes the
 11994 description in the subapplication. The operations and maintenance plan description must
 11995 include:

- 11996 a. A description of the maintenance procedures.
- 11997 b. A brief statement about the operation of the safe room when it is in use.
- 11998 c. Basic information about how the safe room will be used, including how use is
- 11999 initiated, the warning system, and basic procedures for opening the doors to the
- 12000 public.
- 12001 d. Key components of the safe room maintenance procedures.
- 12002 e. The office that will be responsible for the operations and maintenance of the safe
- 12003 room.
- 12004 f. Assurance the operations and maintenance plan will be developed and completed
- 12005 before project closeout.
- 12006 2. The subrecipient develops the operations and maintenance plan.
- 12007 3. Prior to closeout, the recipient and FEMA review the subapplicant’s final signed operations and
- 12008 maintenance plan. The community safe room inventory in the operations and maintenance plan
- 12009 must include essential equipment and supplies, such as communications equipment, emergency
- 12010 equipment, first-aid supplies, water and sanitary supplies.

12011 **B.8.2.3.1. Development of an Operations and Maintenance Plan**

12012 The development of an operations and maintenance plan should be coordinated with the

12013 appropriate entities using and operating the community safe room and should be signed by

12014 authorized officials in these organizations.

12015 The operations and maintenance plan may be based on preliminary engineering drawings and

12016 should include, at a minimum, the components listed below. FEMA P-361 provides guidance and

12017 best practices on operations and maintenance plan components. The required components of a plan

12018 are summarized below.

12019 **B.8.2.3.2. Operations Components**

12020 The operations components of an operations and maintenance plan should include the following, at

12021 a minimum:

- 12022 ▪ Community organization(s) responsible for operating and maintaining the community safe
- 12023 room, such as the local emergency management office, and contact information for the
- 12024 relevant office(s).
- 12025 ▪ Command and management roles and responsibilities for key individuals, such as the safe
- 12026 room manager and site coordinator, and their essential duties and/or the agency responsible
- 12027 for fulfilling these roles.
- 12028 ▪ Major tasks that the safe room management team will perform during a tornado/hurricane
- 12029 watch issued by the National Weather Service.

- 12030 ▪ General operation tasks in the community safe room from the time the emergency is
12031 announced to the time occupants may safely leave.

12032 **B.8.2.3.3. Maintenance Components**

12033 The maintenance components of an operations and maintenance plan should include assurance
12034 from the organization responsible for operating and maintaining the community safe room of the
12035 following during the useful life of the community safe room:

- 12036 ▪ Nonmitigation uses will not prohibit the use of the community safe room to perform its
12037 hazard mitigation purpose of life-safety protection (i.e., the safe room will not be used for
12038 storage or other activities that would reduce the available occupancy/space).

- 12039 ▪ A designated party will schedule and perform regular maintenance during the useful life of
12040 the community safe room.

- 12041 ▪ Basic exterior and interior signage will be posted as necessary and appropriate for adequate
12042 safe room operations.

- 12043 ▪ A redundant power source, such as batteries or generators, will be available to provide
12044 standby (emergency) power for lighting and ventilation for the community safe room in the
12045 event of primary power failure, as required.

12046 **B.8.2.4. Review of Final Operations and Maintenance Plan**

12047 FEMA requires that the recipient affirm that the final operations and maintenance plan meets the
12048 FEMA P-361 requirements by following the steps below:

- 12049 1. Review the final operations and maintenance plan to ensure it addresses the operations and
12050 maintenance components.
- 12051 2. Coordinate with the subrecipient to address any missing components.
- 12052 3. Transmit the final operations and maintenance plan to FEMA with a written statement affirming
12053 that it is consistent with FEMA P-361 guidance.

12054 FEMA will review the plan and inform the recipient in writing once it has determined that the final
12055 plan has all the required components. FEMA’s comments on the final operations and maintenance
12056 plan must be addressed before FEMA makes a final determination of consistency. Recipients not
12057 completing a final operations and maintenance plan at closeout will be subject to the recoupment of
12058 award assistance as determined by FEMA.

12059 **B.8.2.5. Ineligible Activity**

12060 Safe room projects must be consistent with the criteria described in [Part 4](#).

12061 As noted above, HMGP, HMGP Post Fire and BRIC assistance is not available for general population
 12062 shelters, including evacuation and recovery shelters. The emergency management measures
 12063 necessary to afford protection to thousands of occupants of large, public venues, such as stadiums
 12064 or amphitheaters, are beyond the scope of BRIC, HMGP and HMGP Post Fire community safe rooms;
 12065 therefore, general population shelters are not eligible for BRIC, HMGP or HMGP Post Fire assistance.

12066 **B.8.2.6. Cost-Effectiveness**

12067 Applicants and subapplicants must demonstrate that mitigation projects are cost-effective. Projects
 12068 must be consistent with [Part 5](#).

12069 HMGP, HMGP Post Fire and BRIC safe room project subapplications must demonstrate project cost-
 12070 effectiveness using one of the methodologies described in [Part 5](#). Pre-calculated benefits may only
 12071 be used for tornado residential safe rooms.

12072 This section discusses the total project costs required to demonstrate compliance with cost-
 12073 effectiveness requirements. The total project cost for BCA purposes is the sum of all eligible costs
 12074 necessary to achieve life-safety protection. Eligible project costs generally include:

- 12075 ▪ Design activities.
- 12076 ▪ Site preparation and building foundation materials and construction.
- 12077 ▪ Structural systems capable of resisting the design wind loads (including roof and wall
 12078 framing).
- 12079 ▪ Protective envelope components such as walls, ceiling/roof systems and impact protective
 12080 systems (doors, shutters).
- 12081 ▪ Other retrofit hardening activities that meet FEMA-approved performance criteria.
- 12082 ▪ Functional components such as permanent electrical lighting, heating, ventilation, air
 12083 conditioning, and toilets and hand-washing facilities consistent with FEMA P-361 criteria; fire
 12084 suppression sprinkler systems; and signage, emergency communications equipment and
 12085 backup power generation for the safe room area.
- 12086 ▪ Operations and maintenance plan development.
- 12087 ▪ Costs associated with the acquisition of land.

12088 In some cases, the total project cost of a safe room for a large community may exceed HMGP, HMGP
 12089 Post Fire or BRIC limits. In these cases, the actual total project cost must be used in the BCA. The
 12090 program funding limit (which would be less than the actual project cost) may not be used as the total
 12091 project cost entered into the BCA. Similarly, some applications may not request HMGP, HMGP Post
 12092 Fire and BRIC assistance up to the available federal cost share. In these cases, the BCA must still

12093 use the sum of all required (not just requested) costs necessary to achieve the hazard mitigation
 12094 purpose of immediate life-safety protection.

12095 **B.8.2.6.1. Tornado Residential Safe Room Pre-Calculated Benefits**

12096 Tornado residential safe rooms have different requirements than community tornado safe rooms.
 12097 Unlike community safe rooms, tornado residential safe room construction projects may use pre-
 12098 calculated benefits to demonstrate cost-effectiveness methodology.

12099 Applicants must use the Expedited HMGP Application for Residential Safe Rooms to apply for pre-
 12100 calculated benefits under HMGP and HMGP Post Fire. The pre-calculated benefit provides
 12101 standardized BCA benefit values associated with residential safe rooms so that individual BCAs are
 12102 not required as long as the project costs do not exceed the benefits (shown in [Table 33](#)). A safe room
 12103 that costs less than the value indicated for the state where it is located is automatically considered
 12104 cost-effective. For subapplications that contain multiple structures, the average cost of all structures
 12105 in the project must be less than the value provided below. For additional information, see the [Safe](#)
 12106 [Room Project Application Using Pre-Calculated Benefits](#) job aid.

12107 For up-to-date information on the dollar value of the pre-calculated benefit, see FEMA’s [“Benefit-Cost](#)
 12108 [Analysis”](#) webpage.

12109 **Table 33: Tornado Residential Safe Room Aggregate Benefits by State**

State	Aggregate Benefit	State	Aggregate Benefit
Alabama	\$13,336.96	Nebraska	\$9,921.78
Arkansas	\$16,717.85	North Carolina	\$5,723.26
Georgia	\$5,290.98	Ohio	\$11,469.38
Illinois	\$13,685.72	Oklahoma	\$18,366.36
Iowa	\$14,962.87	Pennsylvania	\$4,065.90
Indiana	\$18,126.34	South Carolina	\$6,139.38
Kansas	\$14,005.75	South Dakota	\$5,230.17
Kentucky	\$13,554.96	Tennessee	\$13,579.58
Louisiana	\$9,921.94	Texas	\$5,421.32
Michigan	\$6,522.49	Virginia	\$3,936.05
Missouri	\$15,654.96	West Virginia	\$4,973.50
Mississippi	\$20,067.64	Wisconsin	\$9,025.48
Minnesota	\$7,092.39		

12110 **B.8.2.7. Feasibility and Effectiveness**

12111 To qualify for BRIC or HMGP assistance, a safe room must be designed and constructed to meet the
 12112 requirements and FEMA Funding Criteria in FEMA P-361, which references ICC 500. A structure
 12113 designed to lower design criteria provides a lower level of protection, resulting in a greater degree of
 12114 risk than is acceptable to FEMA and therefore is not eligible for HMGP, HMGP Post Fire and BRIC
 12115 assistance. FEMA recognizes acceptable life-safety protection for safe room occupants if the project
 12116 application documentation shows the safe room project meets or exceeds the criteria set forth in
 12117 FEMA P-361. The residential prescriptive solutions provided in FEMA P-320, when unchanged, meet
 12118 the criteria of FEMA P-361. In addition, for the Design and Construction of Storm Shelters
 12119 (International Code Council 500) is a consensus standard from International Code Council and has
 12120 been a referenced standard of the International Codes since 2009. [FEMA P-361](#) also references ICC
 12121 500, which provides all minimum requirements for storm shelters; however, [FEMA P-361](#) has
 12122 additional requirements that are more conservative than ICC 500. These are referred to as “FEMA
 12123 Funding Criteria” and are summarized in Appendix D of [FEMA P-361](#).

12124 In accordance with FEMA Funding Criteria, applicants must submit documents that include a
 12125 statement that safe room design conforms to the provisions of the latest editions of ICC 500 and
 12126 [FEMA P-361](#). Refer to section A.1.4, “Deciding Whether to Install or Construct a Safe Room” in FEMA
 12127 P-361 for more information.

12128 **B.8.2.8. Environmental and Historic Preservation**

12129 All subapplications submitted to FEMA must meet the EHP criteria in [Part 4](#). All subapplications must
 12130 provide the information described in [Part 6](#) so that FEMA may perform the EHP review.

12131 To assist with the EHP review, FEMA has prepared a Programmatic Environmental Assessment to
 12132 help project application developers and reviewers streamline the evaluation of potential impacts to
 12133 the human environment resulting from the construction of residential and community safe rooms
 12134 that are proposed for HMGP or BRIC assistance. The Programmatic Environmental Assessment
 12135 provides the public and decision-makers with helpful information necessary to understand and
 12136 evaluate the potential environmental consequences of these hazard mitigation actions and helps
 12137 streamline the National Environmental Policy Act review process.

12138 The *Safe Rooms–Required Information for EHP Review* job aid lists the documentation needed for
 12139 FEMA to complete the EHP compliance review process for projects.

12140 **B.8.3. SAFE ROOM: APPLICATION AND SUBMISSION INFORMATION**

12141 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
 12142 should have a scoping narrative in accordance with [Part 6](#). Project-specific criteria are highlighted
 12143 below.

12144 FEMA may request additional information after the subapplication has been submitted to ensure all
12145 necessary information is received. However, all information required by the regulations and the HMA
12146 Guide must be received before an assistance decision and award or final approval can be made.

12147 The subapplication must include the following identification of the impacted population:

12148 ▪ Documentation on the composition, size and rationale for including each group designated
12149 as a disproportionately impacted population.

12150 ▪ Description of warning capabilities, logistics and operation components that support basic
12151 safe room functions.

12152 ▪ Documentation that demonstrates how the designated population would reach the safe
12153 room within the prescribed time limit after notification as required by FEMA P-361 (for
12154 tornado residential and community safe rooms).

12155 ▪ If land acquisition is proposed, the current value of property and documentation
12156 demonstrating how the market value was determined.

12157 ▪ For community safe rooms, description of the approach the subapplicant will use in
12158 preparing the operations and maintenance plan.

12159 **B.8.3.1. Activities and Schedule**

12160 As part of the scope of work, all subapplications should include an activities description referencing
12161 industry standards or project plans and specifications and a schedule for the project. Additionally, a
12162 scope of work should include work activities, deliverables and timelines associated with a project.

12163 **B.8.3.2. Clear Title**

12164 If property acquisition is proposed, the subrecipient must conduct a title search for the property it
12165 plans to acquire. The purpose of the title search is to ensure the owner is the sole and actual
12166 titleholder to the property, to identify other persons with a property interest if the owner is not the
12167 sole and actual titleholder and to ensure the title is clear (i.e., no mortgages or liens are outstanding
12168 on the sale of the property).

12169 The subapplicant should document the process they will use to gain the necessary state and local
12170 approvals to construct a community saferoom, prior to the purchase of the property.

12171 Other title-related requirements are as follows:

12172 ▪ A title insurance policy demonstrating the clear title must be obtained for each approved
12173 property that will be acquired.

- 12174 ▪ A physical site inspection for each property must be conducted to verify there are no physical
12175 encumbrances to the property (a site survey may be necessary to clearly establish property
12176 boundaries).
- 12177 ▪ The property title must be transferred by a warranty deed in all jurisdictions that recognize
12178 warranty deeds.
- 12179 ▪ The subrecipient must take possession at settlement.
- 12180 ▪ The subrecipient must record the deed at the same time as settlement along with any
12181 program deed restrictions.
- 12182 ▪ The deed transferring title to the property and the program deed restrictions will be recorded
12183 according to state law and within 14 calendar days after the settlement.

12184 **B.8.3.3. Eligible Costs**

12185 Eligible costs for BRIC, HMGP and HMGP Post Fire assisted safe room projects are costs for project
12186 components (e.g., design, construction, project management) that are related directly to and
12187 necessary for the hazard mitigation purpose of providing immediate life-safety protection by means
12188 of the structure and the building envelope to the limited population that must remain in the impact
12189 area during an extreme wind event.

12190 For each structure type, eligible project costs are limited to:

- 12191 ▪ **Protection by design components**, including the safe room envelope and impact protective
12192 systems (walls, ceilings, doors, windows, as specified in FEMA P-361, ICC 500 and applicable
12193 local building codes).
- 12194 ▪ **Ancillary components** required by FEMA P-361, including standby (backup) power,
12195 communications and emergency electrical lighting limited to within the safe room, as well as
12196 protection of ancillary components to the same degree as the safe room.
- 12197 ▪ **Design and construction components** for safe room portion only, including engineering fees,
12198 permit fees, special inspection fees and excavation.
- 12199 ▪ **Required features** necessary for safe room function and habitation, including ventilation,
12200 permanent electrical lighting, and ADA requirements such as accessible toilets and hand-
12201 washing stations.

12202 **B.8.3.4. Ineligible Costs**

12203 Costs associated with providing facilities for any function that is not essential for life-safety
12204 protection of occupants are not eligible. If a safe room facility can fulfill its basic function of life-
12205 safety protection for occupants during a storm without a building feature or component that provides
12206 conveniences or additional comfort, costs associated with that feature or component are not eligible.

12207 Examples are flooring, seating and food preparation facilities. This is a significant issue in multi-use
 12208 community safe rooms, which are designed to provide other functions that are not eligible for
 12209 funding.

12210 [Table 34](#) shows examples of eligible and ineligible components of residential and community safety
 12211 rooms. This table can be referred to when determining whether a component is an eligible cost of a
 12212 safe room application. Note there are differences in what is considered an eligible cost for a
 12213 residential safe room versus a community safe room because of the different scope of the projects.
 12214 Some items for multi-use safe rooms may be prorated based on safe room-specific occupancy.

12215 **Table 34: Eligible and Ineligible Components of Residential and Community Safe Rooms**

Building Systems and Components	Residential	Community
Structural systems that directly support or protect the safe room to provide near-absolute life-safety protection	Yes	Yes
Impact protective systems (doors, windows and other opening protection)	Yes	Yes
Protection of backup mechanical, electrical, ventilation and communication equipment necessary to provide life safety for the safe room	Yes	Yes
Safe room signage	Yes	Yes
Communications, including Local Area Network drops and wiring if used for emergency communication during an event	Yes	Yes
Construction permit fees	Yes	Yes
Alternate source of power for the safe room	Yes	Yes
First aid supplies and equipment to meet safe room occupancy requirements	Yes	Yes
Fire suppression systems (sprinklers systems and fire extinguishers)	No*	Yes
Electrical lighting and outlets	Yes	Yes
ADA requirements	Yes	Yes
Ventilation	Yes	Yes
Heating, ventilation and air conditioning used for required ventilation	Yes	Yes
Heating, ventilation and air conditioning not used for required ventilation	No	No
Accessible toilets and hand-washing stations in safe room	No	Yes
Planning/engineering/architecture design fees	Yes	Yes

Building Systems and Components	Residential	Community
Engineering study to calculate undefined flood elevations	Yes	Yes
Engineering peer review	Yes	Yes
Site preparation	Yes	Yes
Inspections, including special inspections	Yes	Yes
Soil test	No	Yes
Storage room for food, water and safety equipment	No	Yes
Purchase of land (market value of the real property [land and structures] at the time of sale)	No	Yes
Fees for necessary appraisals, title searches, title insurance, property inspections, permit fees, and surveys	No	Yes
Fees associated with the title transfer and contract review, and other costs associated with conducting the real estate settlement, including recordation of the deed and deed restrictions	No	Yes
Property tax liens or tax obligations that can be extinguished with proceeds from property sale while performing the transfer of title	No	Yes
Safe room maintenance	No	No
Restroom fixtures not required by code or FEMA P-361	No	No
Paint on walls and ceilings of safe room	No	No
Floor coverings – subfloors not required for life safety	No	No
Removal of structures from developed land	No	No
Kitchen cabinets, countertops and other equipment not required for life safety	No	No
Security cameras and emergency operations center-type equipment	No	No
Landscaping	No	No
Parking and all nonbuilding elements unless required for ADA compliance	No	No
Community-wide, mass notification systems	No	No

12216 * Eligible if required by local codes

12217 **B.8.3.5. Budget**

12218 All subapplications should include a line-item breakdown of all anticipated costs. See [Part 6](#) for more
 12219 information.

12220 Subapplicants may apply for subrecipient management costs to cover administrative costs.
12221 Management costs must be included in the subapplication budget as a separate line item. More
12222 information about the requirements for management cost requests can be found in [Part 13](#).

12223 Applications for safe room projects must include detailed line-item costs in the project budgets. Well-
12224 documented project budgets contain quantities, unit costs, and a source for each unit cost. In
12225 contrast, lump-sum estimates do not provide quantities and unit costs required to evaluate the
12226 accuracy of the project budget. Lump-sum estimates are not acceptable.

12227 HMGP, HMGP Post Fire and BRIC project budgets include unit costs related to the proposed square
12228 footage of the protected area or areas of the safe room. Unit costs may also be related to the
12229 protected population (occupants) of the safe room.

12230 **B.8.3.5.1. Value of the Property**

12231 For property identified for acquisition, the subrecipient shall establish and document a property
12232 value based on market value, which is defined as:

The amount in cash, or on terms reasonably equivalent to cash, for which in all probability the property would have sold on the effective date of the valuation, after a reasonable exposure time on the open competitive market, from a willing and reasonably knowledgeable seller to a willing and reasonably knowledgeable buyer, with neither acting under any compulsion to buy or sell, giving due consideration to all available economic uses of the property at the time of the valuation.

12239 The current market value reflects the property value at the time of purchase. The following appraisal
12240 methodology must be used to determine property value:

- 12241 ▪ The appraisal must be conducted by an appraiser in accordance with the Uniform Standards
12242 of Professional Appraisal Practice.
- 12243 ▪ The appraiser must comply with relevant state laws and requirements and have the
12244 appropriate certification, qualifications and competencies based on the type of property
12245 being appraised.

12246 **B.8.4. SAFE ROOM: SUBAWARD IMPLEMENTATION**

12247 The basic steps in implementing an approved HMA safe room project are:

- 12248 1. Pre-construction (acquire land, if applicable, or rights to modify a portion of an existing structure;
12249 carry out design process; seek technical consultant; prepare cost estimate; obtain building
12250 permits; hire construction manager/contractor).
- 12251 2. Before construction begins, obtain copies of submittal documents (e.g., plans and specifications)
12252 and peer-reviewed report and quality assurance plan as required to be provided to the authority
12253 having jurisdiction (e.g., building official) in accordance with the latest editions of ICC 500 and

12254 FEMA P-361. Note that FEMA Funding Criteria requires a statement be included with the
 12255 submittal documents that states the design conforms to (1) the provisions of ICC 500 with the
 12256 edition year specified and (2) the FEMA Funding Criteria of FEMA P-361 with the edition year
 12257 specified.

12258 3. Clear/prepare site and install erosion control measures to prepare for construction activities.

12259 4. Construct or install saferoom in accordance with all guidance and codes.

12260 5. Conduct inspections and obtain Certificate of Occupancy.

12261 6. Prepare the operations and maintenance plan.

12262 Post-award monitoring helps ensure subrecipients are achieving the objectives of the federal award
 12263 consistent with the performance goals and milestones described in the subaward. To assist the
 12264 recipient in monitoring safe room projects, the following information should be included in Quarterly
 12265 Progress Reports:

12266 ▪ If the subrecipient is acquiring contract support, the subrecipient should report when the
 12267 request for proposal is completed, when the contract is out for bid, when the bid period
 12268 closes, when proposals are reviewed, when the contractor is selected and the date of the
 12269 kickoff meeting.

12270 ▪ Describe the current status including a summary of:

12271 ○ Recent progress and planned work.

12272 ○ Risks identified or changes from the milestones/deliverables submitted with the scope of
 12273 work (e.g., financial concerns, coordination issues with state or local governments and
 12274 utilities, project management or contracting issues, legal disputes, and significant
 12275 changes impacting construction activities or timelines such as delays due to weather,
 12276 materials, procurement or labor issues).

12277 ▪ When construction has started, is substantially complete or completed.

12278 ▪ Describe planned and completed peer reviewed and inspection activities.

12279 ▪ If property is purchased, the report should provide property address, purchase price and
 12280 date.

12281 ▪ Any other milestones that have been identified in the subapplication or agreed to or are
 12282 required by the recipient.

12283 **B.8.5. SAFE ROOM: INSPECTION CONSIDERATIONS AND PEER REVIEW**

12284 Safe rooms must have all required inspection and peer reviews as required in FEMA-361 and ICC
 12285 500. Safe rooms have significantly more administrative checks than other HMA projects.

12286 Recipients/subrecipients are encouraged to review code requirements to determine the inspection
12287 schedule/requirements throughout the construction process.

12288 The peer review’s purpose is for independent design professionals to review design and construction
12289 documents of the safe room to ensure it meets FEMA design standards. If issues are found in the
12290 design of the safe room, they can be addressed and resolved. The peer review typically involves
12291 multiple design professionals to adequately address all architectural and engineering disciplines.

12292 The peer review must be completed by an independent registered design professional; they must not
12293 be the design professional providing design oversight of the safe room. The peer reviewer in charge
12294 must be hired by the safe room owner or owner’s representative. The peer reviewer(s) must disclose
12295 any conflicts of interest (financial or otherwise) that could compromise the independence of the
12296 review to the authority having jurisdiction and must meet the requirements to be a peer reviewer
12297 outlined in [FEMA P-361](#).

12298 The peer reviewer will review the structural design, occupancy, means of egress, access and
12299 accessibility, fire safety and essential features of the safe room. Peer review is required to cover ICC
12300 500 Chapters 3, 4, 5 ,6 and 7 and sections 106, 107, 110 and 111. Applicants and subapplicant
12301 should review FEMA P-361 and ICC 500 to determine which aspects of the project require peer
12302 review. This may require inspections and peer review before, during and after construction.

12303 Following the review, the signed, sealed report should be submitted by the owner or owner’s
12304 representative to the authority having jurisdiction of the recipient. The report should include detailed
12305 descriptions of the items reviewed and a recommendation of acceptance or rejection for each with
12306 an explanation provided for rejected items. The recipient will submit the peer review report as part of
12307 closeout.

12308 **B.8.6. SAFE ROOM: BUDGET AND SCOPE CHANGE**

12309 All budget and scope changes must have prior FEMA approval consistent with [Part 8](#). Because the
12310 final design may not be completed prior to award, once the project is awarded, the design must be
12311 finalized by a licensed professional engineer. If the scope of work or cost estimate change because
12312 of completing the final design or to address permitting requirements, prior approval from FEMA is
12313 required.

12314 **B.8.7. SAFE ROOM: CLOSEOUT**

12315 Recipients and subrecipients must closeout projects in a timely manner consistent with [Part 9](#).

12316 The review of the completed saferoom must verify the safe room meets or exceeds FEMA P-361 and
12317 ICC 500 standards that were in force on the award date.

12318 In addition to the typical HMA program closeout procedures, closeout of safe room projects generally
12319 includes:

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- Documentation that completed projects provide the level of protection approved in the scope of work. This may be included as a part of the required statements and peer review reports to verify compliant design, structural observations and special inspections.
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- Photographs of the project site before, during and after construction. Photographs should confirm the scope of work is completed and be taken from the inside of the structure(s) and saferoom(s). For community saferooms, photographs of bathrooms should be included. Photographs may be included in the inspection report.
- 12327
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- Latitude/longitude of each project site and safe room entrance(s) to the nearest sixth decimal place.
- 12329
- For community safe rooms:
 - When required by FEMA P-361, any structural and nonstructural design peer review reports from an independent registered design professional certifying the community safe room is designed to meet or exceed requirements.
 - A final, signed operations and maintenance plan.
 - Photos of the project site before and after construction. Photos should confirm the scope of work is completed.
 - Latitude/longitude of each project site and safe room entrance(s) to the nearest sixth decimal place.
 - A vicinity map and map of the SFHA if applicable.
 - A record of completed structural observations in accordance with ICC 500 and [FEMA P-361](#) that includes:
 - A written statement from the registered design profession who performed the structural observations that the required site visits have been made. The statement must also identify any reported deficiencies that, to the best of their knowledge, have not been resolved.
 - Where special inspections are required, the statement of special inspections.
 - Where safe room construction included changes to specifications in the submittal documents, approved change orders and a final as-built set of construction drawings.
 - A final operations and maintenance plan signed and dated by authorized officials for that community saferoom.
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- For residential safe rooms:


- 12351 ○ For prefabricated safe rooms: The building official’s approval of installation or signed
12352 statement from the installer that the safe room foundation capacity (including thickness,
12353 steel reinforcement and concrete cover) and post-installed foundation anchors (locations
12354 and capacities) meet or exceed the corresponding design information submitted in
12355 accordance with ICC 500 and FEMA P-361.
- 12356 ○ For site-built safe rooms: Where FEMA P-320 design plans are constructed, the
12357 professional engineer who reviews the selected plan and site conditions is required to
12358 sign and seal the design plan page SRO.0 of the prescriptive design plans in FEMA P-
12359 320, complete any missing information on page SRO.1 of the prescriptive design plans in
12360 FEMA P-320, and provide all approved field change orders.
- 12361 ○ Property site inventory listing properties that were mitigated including property address,
12362 parcel information and latitude/longitude coordinates to the nearest sixth decimal place
12363 for the main egress into the safe room for each property.
- 12364 ○ For properties located within the SFHA:
 - 12365 – A copy of the elevation certificate (FEMA Form 086-0-33).
 - 12366 – Recorded deed for each mitigated property, indicating compliance with FEMA’s
12367 Model Acknowledgement of Conditions for Mitigation of Property in a Special Flood
12368 Hazard Area with FEMA Grant Funds.
 - 12369 – Proof of appropriate level of flood insurance (such as a copy of the flood insurance
12370 policy).

12371 **B.8.7.1. Records Retention**

12372 All subrecipients must comply with [Part 9](#).

12373 The subrecipient should retain construction documents that are in support of FEMA-assisted work for
12374 the lifespan of the safe room.

12375 **B.8.8. SAFE ROOM: RESOURCES**


Safe Room Resources

- 12377 ▪ FEMA BCA webpage: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>
- 12378 ▪ EHP review job aids: [https://www.fema.gov/grants/guidance-tools/environmental-](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
12379 [historic/preparation-resources](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
- 12380 ▪ Expedited HMGP Application for Residential Safe Rooms:
12381 <https://www.fema.gov/grants/mitigation/job-aids> (search “safe rooms”)

- 12382 ▪ Safe Room Project Application Using Pre-Calculated Benefits:
12383 [https://www.fema.gov/media-library-data/1424368115734-](https://www.fema.gov/media-library-data/1424368115734-86cfbaeb456f7c1d57a05d3e8e08a4bd/FINAL_SafeRoom_JobAid_13FEB15_508complete.pdf)
12384 [86cfbaeb456f7c1d57a05d3e8e08a4bd/FINAL_SafeRoom_JobAid_13FEB15_508comple](https://www.fema.gov/media-library-data/1424368115734-86cfbaeb456f7c1d57a05d3e8e08a4bd/FINAL_SafeRoom_JobAid_13FEB15_508complete.pdf)
12385 [te.pdf](https://www.fema.gov/media-library-data/1424368115734-86cfbaeb456f7c1d57a05d3e8e08a4bd/FINAL_SafeRoom_JobAid_13FEB15_508complete.pdf)
- 12386 ▪ Safe Room Information and Resources: <https://www.fema.gov/safe-rooms>
- 12387 ▪ FEMA P-361, *Safe Rooms for Tornadoes and Hurricanes*:
12388 [https://www.fema.gov/sites/default/files/documents/fema_safe-rooms-for-tornadoes-](https://www.fema.gov/sites/default/files/documents/fema_safe-rooms-for-tornadoes-and-hurricanes_p-361.pdf)
12389 [and-hurricanes_p-361.pdf](https://www.fema.gov/sites/default/files/documents/fema_safe-rooms-for-tornadoes-and-hurricanes_p-361.pdf)
- 12390 ▪ FEMA P-320, *Taking Shelter from the Storm*:
12391 [https://www.fema.gov/sites/default/files/documents/fema_taking-shelter-from-the-](https://www.fema.gov/sites/default/files/documents/fema_taking-shelter-from-the-storm_p-320.pdf)
12392 [storm_p-320.pdf](https://www.fema.gov/sites/default/files/documents/fema_taking-shelter-from-the-storm_p-320.pdf)
- 12393 ▪ ICC 500, *Standard for the Design and Construction of Storm Shelters*:
12394 <https://codes.iccsafe.org/content/ICC5002020>
- 12395 ▪ Closeout Toolkit: Checklist for HMGP Subawards:
12396 [https://www.fema.gov/sites/default/files/2020-](https://www.fema.gov/sites/default/files/2020-09/fema_closeout_toolkit_checklist_hazard_mitigation_grant_program_subawards_02-19-15.pdf)
12397 [09/fema_closeout_toolkit_checklist_hazard_mitigation_grant_program_subawards_02-](https://www.fema.gov/sites/default/files/2020-09/fema_closeout_toolkit_checklist_hazard_mitigation_grant_program_subawards_02-19-15.pdf)
12398 [19-15.pdf](https://www.fema.gov/sites/default/files/2020-09/fema_closeout_toolkit_checklist_hazard_mitigation_grant_program_subawards_02-19-15.pdf)

12399 **B.9. Wildfire Mitigation**

12400 **B.9.1. WILDFIRE MITIGATION: OVERVIEW**

12401 Wildfire mitigation projects are any actions undertaken to decrease the risk of damage or loss of life
 12402 from wildfires. FEMA wildfire mitigation activities can be assisted by HMGP, HMGP Post Fire and
 12403 BRIC. Assistance under these programs is not available for wildfire mitigation beyond the parameters
 12404 described in the HMA Guide.

12405 **B.9.2. WILDFIRE MITIGATION: ELIGIBILITY**

12406 This section addresses project eligibility requirements and lists the types of projects that FEMA will
 12407 assist.

12408 **B.9.2.1. Eligibility Criteria**

12409 FEMA assistance will only be considered for clearly defined vulnerable buildings and structures.
 12410 Eligible wildfire mitigation projects must clearly demonstrate mitigation of the risk from wildfire to
 12411 residential and nonresidential buildings and structures, including public and commercial facilities.
 12412 Projects must be in a Wildland Urban Interface (WUI), be adjacent to or intermingled with the built
 12413 environment, and provide protection to life and the built environment from future wildfires. The WUI
 12414 is an area where human-made structures and infrastructure (e.g., cell towers, schools and water
 12415 supply facilities) are in or adjacent to areas prone to wildfire.

12416 **B.9.2.2. Eligible Activity**

12417 FEMA will only assist specific wildfire mitigation activities. These activities are summarized in [Table](#)
 12418 [35](#).

12419 **Table 35: Eligible Wildfire Management Activities**

Activity	HMGP	HMGP Post Fire	BRIC	FMA
Defensible space	Yes	Yes	Yes	No
Ignition-resistant building materials*	Yes	Yes	Yes	No
Ignition-resistant infrastructure**	Yes	Yes	Yes	No
▪ Ignition-resistant utility pole structures	Yes	Yes	Yes	No
▪ Repair/replace/upgrade water systems	Yes	Yes	Yes	No
Fire suppression system (sprinklers)***	Yes	Yes	Yes	No
Fuel reduction/vegetation management	Yes	Yes	Yes	No

Activity	HMGP	HMGP Post Fire	BRIC	FMA
Post-wildfire flooding prevention and sediment reduction measures:	Yes	Yes	Yes	No
▪ Reforestation, restoration and/or soil stabilization	Yes	Yes	Yes	No
▪ Ground cover vegetation re-establishment (e.g., seeding and mulching)	Yes	Yes	Yes	No
▪ Erosion prevention measures on slopes	Yes	Yes	Yes	No
▪ Flash flooding prevention measures resulting from runoff (e.g., drainage dips and debris traps)	Yes	Yes	Yes	No
Installing warning equipment and systems [†]	Yes	Yes	Yes	No

- 12420 * Only eligible if the property owner has completed or agrees to complete and maintain defensible
- 12421 space measures around the structure.
- 12422 ** Section B.10. Retrofit contains additional information on this project type.
- 12423 *** Only external water hydration or thermal insulation systems are eligible.
- 12424 † Section B.12. Warning Systems contains additional information on this project type.

12425 **B.9.2.2.1. Defensible Space**

12426 Creating defensible space involves creating a perimeter around a residential or nonresidential
 12427 building or structure by removing or reducing the volume of flammable vegetation, including clearing
 12428 tree branches vertically and horizontally. The volume of vegetation is minimized, flammable
 12429 vegetation is replaced with less flammable species, and combustibles are cleared in accordance
 12430 with all applicable codes and best practices. FEMA recognizes the importance of creating defensible
 12431 space for residential and nonresidential buildings and structures in accordance with local fire codes;
 12432 standards and design criteria provided by ICC, FEMA, the U.S. Fire Administration and the NFPA; well-
 12433 established and proven techniques; and NFPA Firewise practices. FEMA recommends that ingress
 12434 and egress to the building be maintained.

12435 The required radius of defensible space around a building is related to the degree of the hazard, and
 12436 the radius that is needed for an effective defensible space may therefore vary from one jurisdiction
 12437 or building to another. In addition, the topography, specifically slope steepness and direction, and
 12438 the arrangement, amount and flammability of the vegetation may require extending the perimeter.
 12439 When the proposed perimeter extends beyond what is required, the effectiveness of the proposed
 12440 defensible space must be demonstrated in the project application.

12441 Defensible space projects for residential structures, commercial buildings, public facilities and
 12442 infrastructure must be implemented in conformance with local code requirements and standards for
 12443 defensible space. FEMA recommends that projects use the design guidance in [FEMA P-737: Home](#)

12444 *Builder’s Guide to Construction in Wildfire Zones* (September 2008) or [FEMA P-754: Wildfire Hazard](#)
 12445 *Mitigation Handbook for Public Facilities* (October 2008), if the latter presents a stricter standard.

12446 **B.9.2.2.2. Ignition-Resistant Building Materials**

12447 Structural protection through ignition-resistant construction involves the use of noncombustible or
 12448 ignition-resistant materials, technologies, assemblies and retrofit techniques on new and existing
 12449 buildings and structures.

12450 FEMA will consider a subapplication for an ignition-resistant building materials project only when one
 12451 of the following has occurred:

12452 ▪ The property owner has previously created defensible space and agrees to maintain the
 12453 defensible space in accordance with the HMA Guide. The subapplicant must include
 12454 documentation describing the defensible space for each property in the application. FEMA
 12455 will provide assistance for ignition-resistant construction projects only after the subapplicant
 12456 has demonstrated that the defensible space activity is complete and has provided
 12457 documentation (i.e., photographs and description of the defensible space).

12458 ▪ The subapplication includes both the defensible space and ignition-resistant construction
 12459 projects as part of the same subapplication. The subapplicant must include a description of
 12460 the defensible space for each property in the subapplication, and each property owner must
 12461 agree to maintain the defensible space in accordance with the HMA Guide.

12462 The protection of homes, structures and critical facilities using ignition-resistant construction
 12463 techniques or noncombustible building materials must be implemented in conformance with the
 12464 local fire-related codes and standards. FEMA recommends that projects use the [International WUI](#)
 12465 [Code](#), FEMA P-737 or FEMA P-754 as appropriate.

12466 FEMA may assist above-code projects in communities if the project is cost-effective and in
 12467 conformance with all applicable eligibility criteria. Eligible activities include:

12468 ▪ **Roof assemblies:** Installation of roof coverings; roof sheathing; roof flashing; roof skylights;
 12469 roof, attic and wall vents; and roof eaves and gutters that conform to any of the following
 12470 ignition-resistant construction standards: (1) construction materials are ignition-resistant in
 12471 accordance with nationally recognized testing standards, (2) construction materials are
 12472 noncombustible or (3) construction materials constitute an assembly that has a minimum
 12473 one-hour fire-resistant rating.

12474 ▪ **Wall components:** Installation of wall components, such as the fascia, windows, window
 12475 glazing, doors, window frames and insulation that conform to any of the following ignition-
 12476 resistant construction standards: (1) construction materials are ignition-resistant in
 12477 accordance with nationally recognized testing standards, (2) construction materials are
 12478 noncombustible or (3) construction materials constitute an assembly that has a minimum
 12479 one-hour fire-resistant rating.

- 12480 ▪ **Protection of fuel tanks:** Protection of propane tanks or other external fuel sources.
- 12481 ▪ **External water hydration and thermal insulation systems:** Purchase and installation of
- 12482 external, structure-specific water hydration and thermal insulation systems (foam, fire-
- 12483 retardant and water sprinkler systems) with a dedicated delivery system and dedicated self-
- 12484 contained foam or retardant in sufficient volume to protect the structure. For water
- 12485 sprinklers, a cistern is acceptable if a dry hydrant with a fire department connection or other
- 12486 water source (e.g., lake, river, swimming pool) is available. FEMA will only consider the
- 12487 project when assurance is provided in the operations and maintenance plan that a system
- 12488 (e.g., geographic information system) will be maintained to identify property addresses with
- 12489 wildfire sprinkler systems and will be made available to the appropriate fire department.

12490 **B.9.2.2.3. Fire Suppression System (Exterior Sprinklers)**

12491 During a wildfire, firebrands and airborne debris can breach windows, and convective heat and

12492 embers can penetrate utility openings, gaps around doors and other openings. Exterior water

12493 hydration systems can help extinguish flames before the building has been substantially damaged,

12494 protect nearby buildings and prevent the fire from igniting nearby combustible vegetation.

12495 **B.9.2.2.4. Fuel Reduction/Vegetation Management**

12496 Hazardous fuels reduction involves the removal or modification of vegetative fuels proximate to the

12497 at-risk buildings or structures that, if ignited, pose a significant threat to human life and property,

12498 especially critical facilities. Hazardous fuels reduction includes thinning vegetation, removing ladder

12499 fuels, reducing flammable vegetative materials and replacing flammable vegetation with fire-

12500 resistant vegetation for the protection of life and property. Vegetation may include excess fuels or

12501 flammable vegetation.

12502 Hazardous fuels reduction projects are implemented at the community level and extend beyond

12503 defensible space perimeters. However, FEMA will consider assisting hazardous fuels reduction

12504 projects only if they are within two miles of homes and other structures that meet or exceed

12505 applicable fire-related codes and standards and if the risk reduction for the target community or

12506 buildings is demonstrated.

12507 Hazardous fuels reduction projects will be designed to moderate fire behavior and reduce the risk of

12508 damage to life and property in the target area for mitigation. The natural variation in vegetation,

12509 topography and climate does not lend itself to a national design standard for hazardous fuels

12510 reduction activities. Hazardous fuels reduction projects will be designed and implemented in

12511 accordance with state and local codes and standards and best practices. The project design should

12512 include consideration of the landscape and intended function of the project, and the location and

12513 orientation of the project site should be designed with consideration of the likely direction and

12514 severity of a wildfire.

12515 Hazardous fuels reduction may be accomplished using community-owned, rental or contract

12516 resources and equipment for mechanical treatments, such as disking, mowing, limbing, sawing,

12517 chipping, grinding, mulching and chopping. Chopping equipment may include chippers and saws. The
 12518 equipment may not pose a risk of fire ignition (e.g., by using a spark arrestor).

12519 Eligible activities include community-level vegetation management, vegetation removal, vegetation
 12520 clearing and/or thinning, slash removal and vertical and horizontal clearance of tree branches to
 12521 reduce the threat to human life and structures from future wildfires. Such activities must be no
 12522 farther than 2 miles from structures and may include the following techniques:

12523 ▪ Chemical treatments, including herbicide applications with appropriate safeguards to ensure
 12524 protection of human life, the environment and watersheds.

12525 ▪ Grazing or biomass conversion.

12526 ▪ Mechanical treatments, such as disking, mulching, chipping, grinding, mowing, limbing,
 12527 chopping and removal of such material; material left on-site must meet appropriate depth
 12528 practices in accordance with applicable codes and best practices.

12529 ▪ Biomass removal, including clearing straw, removing dead or dry vegetation, thinning,
 12530 removing brush and pine straw, or removing blown-down timber from wind throw, ice or a
 12531 combination.

12532 ▪ Biomass burning, including gathering vegetation into a pile for burning.

12533 ▪ Felling of standing burned trees and other hazardous trees perpendicular to a slope to help
 12534 prevent erosion.

12535 ▪ Other industry-accepted techniques with FEMA’s approval.

12536 **B.9.2.2.5. Post-Wildfire Flooding Prevention and Sediment Reduction Measures**

12537 Wildfires can leave slopes bare of vegetation, making them subject to erosion. Wildfires also can
 12538 change the chemical composition of the surface soils, making them hydrophobic, which means they
 12539 repel water rather than absorb it. Consequently, periods of intense and/or extended rainfall after a
 12540 wildfire can result in runoff that could result in flash floods, debris slides and mudslides, which could
 12541 pose a threat to life and property at the bottom of the slope.

12542 Post-wildfire flooding preventive measures can be implemented to protect property at the base of
 12543 slopes with hydrophobic soils because of wildfire. These measures may direct water away from the
 12544 property and slow the flow of water down the slope. Post wildfire sediment reduction prevention
 12545 measures are meant to mitigate the risk of sediment and mud flows after a wildfire has burned a
 12546 watershed. Wildfires create the potential for landslides, mudflows and sediment flows, which
 12547 increase the debris and sediments during flooding events. Prevention measures to mitigate the
 12548 amount of sediment in post-wildfire runoff include the use of rock or log dams and sediment debris
 12549 traps.

12550 Flash flooding preventive measures are meant to mitigate risk of flooding after a wildfire event has
 12551 burned the watershed upstream of a project area. Wildfires increase the risk of flooding by reducing
 12552 the vegetation and increasing the ability of the soils in the watershed to retain water. These
 12553 preventative measures include:

12554 ▪ Diversion channels (artificial channels built to reduce excess water flow) or deflection walls
 12555 (generally reinforced concrete structures that can protect bridge abutments) can be used to
 12556 slow and redirect the flow and movement of water across a slope rather than directly
 12557 downward to a stream or wetland.

12558 ▪ Drainage dips (intentionally reverse grade built into a roadway) can divert water flow from the
 12559 surface and direct it instead toward a discharge area.

12560 ▪ Emergency spillways (drainage channels constructed for discharge surplus water) can keep
 12561 roads and bridges from washing out during floods.

12562 ▪ Water bars (berms of soil, straw, rock or bedded logs placed perpendicular to the slope) can
 12563 protect against erosion, run off, and high water by preventing water from overcoming the
 12564 slope.

12565 ▪ Culvert modifications and or removal to channel water off the burn region.

12566 **B.9.2.3. Ineligible Activity**

12567 The wildfire mitigation project must be consistent with the criteria described in [Part 4](#).

12568 The following project activities and their associated costs are not eligible for FEMA assistance:

12569 ▪ Projects that do not protect homes, neighborhoods, structures or infrastructure.

12570 ▪ Projects and activities on federally owned land and land adjacent to federal lands when the
 12571 proposed project falls under the primary or specific authority of another federal agency.

12572 ▪ Projects for hazardous fuels reduction in excess of 2 miles from structures.

12573 ▪ Projects to address ecological or agricultural issues related to land and forest management
 12574 (e.g., insects, diseases, infestations, damage from extreme weather events affecting the
 12575 forest-wide health).

12576 ▪ Irrigation of vegetation to avoid disease or drought-related infestation.

12577 ▪ Projects to protect the environment or watersheds.

12578 ▪ Projects for prescribed burning or clear-cutting activities.

- 12579 ■ Projects for maintenance activities, deferred or future, without an increase in the level of
12580 protection.
- 12581 ■ Projects for the purchase of fire-related equipment (e.g., vehicles, fire trucks) or
12582 communications equipment, except for warning equipment and systems.
- 12583 ■ Projects for the creation and maintenance of fire breaks, access roads and staging areas.
- 12584 ■ Purchase of equipment to accomplish eligible work (e.g., chainsaws, chippers).
- 12585 ■ Projects for vegetation irrigation systems installed on the ground and designed to moisten
12586 the surface.
- 12587 ■ Development or enhancement of fire suppression capability through the purchase of
12588 equipment or resources (e.g., water supply or sources, dry hydrants, cisterns not related to
12589 water hydration systems, dip ponds).
- 12590 ■ Activities intended solely to remedy a code violation without an increase in the level of
12591 protection.

12592 **B.9.2.4. Duplication of Programs**

12593 Before submitting an assistance application, the applicant must ensure that duplication of programs
12594 between federal agencies will not occur. FEMA will not provide assistance for activities for which it
12595 determines the specific authority lies with another federal agency or program. Wildfire mitigation is
12596 addressed by the federal government through a comprehensive legislative framework. FEMA
12597 recognizes that other federal departments and agencies, such as the U.S. Forest Service, Natural
12598 Resource Conservation Service, U.S. Fish and Wildlife Service, National Park Service, Bureau of Land
12599 Management and the Bureau of Indian Affairs, have primary wildland fire management
12600 responsibilities. These departments and agencies also have the primary responsibility for addressing
12601 ongoing forest management conditions, such as those caused by forest age, disease and pest
12602 infestation spreading to and from the federal lands onto adjacent non-federal lands.

12603 While these and other federal agencies have the specific authority to protect the watersheds, forests,
12604 soils and timber resources and address forest management conditions, they also have authority to
12605 address wildfire hazard reduction, including hazardous fuels reduction, with primary attention on
12606 areas that are on or near federal lands. They may also assist state and local jurisdictions in efforts to
12607 protect the built environment in fire-prone areas of forests, ranges and grasslands. FEMA may assist
12608 projects that are complementary and adjacent to but not duplicative of projects assisted by other
12609 federal agencies.

12610 If projects proposed for FEMA HMA hazardous fuels reduction are located in a WUI area, the
12611 applicant can check for potential duplication by contacting a local office of the U.S. Department of
12612 Agriculture or the U.S. Department of the Interior for information. HMA applicants are expected to be
12613 aware of any current or proposed hazardous fuels reduction projects under the U.S. Department of

12614 the Interior or the U.S. Department of Agriculture’s Forest Service and should provide an assurance
 12615 to FEMA that there is no duplication of programs. If a project is already under consideration for
 12616 assistance from another agency, the community should await the outcome of that decision before
 12617 applying for HMA. If an agreement is already in place with another agency to perform hazardous
 12618 fuels reduction but there is a delay in funding, HMA cannot be made available to substitute or
 12619 replace other assistance. If Congress has specifically authorized another federal agency to perform a
 12620 project, duplication of programs and HMA cannot be used regardless of whether there is a current
 12621 appropriation.

12622 FEMA does not have authority to assist projects on federal land owned by another federal entity or
 12623 projects with the purpose of addressing forest health conditions or ecological or agricultural issues
 12624 related to land and forest management (e.g., insects, diseases, damage from extreme weather
 12625 events affecting the forest-wide health, pest infestations). FEMA mitigation authority targets at-risk
 12626 buildings and structures without regard to the benefits to federal land and activities in areas outside
 12627 the primary focus of other federal agency wildfire risk reduction programs. FEMA HMA for wildfires is
 12628 focused on cost-effective, functional mitigation actions taken to reduce the risk to specific properties
 12629 or buildings and structures from future wildfires or flood after fire. FEMA’s goal of reducing the risk
 12630 from wildfire hazards to human life and property, including loss of function to critical facilities, is
 12631 intended to complement, and not duplicate, the programs of numerous other federal agencies, such
 12632 as the U.S. Forest Service or Bureau of Land Management, that fund wildfire risk reduction on non-
 12633 federal lands.

12634 **B.9.2.5. Cost-Effectiveness**

12635 Applicants and subapplicants must demonstrate that mitigation projects are cost-effective. Projects
 12636 must be consistent with [Part 5](#) Cost-Effectiveness.

12637 The wildfire module of the FEMA BCA Toolkit takes into account Landscape Fire and Resource
 12638 Management Planning Tools (LANDFIRE) data,⁴²⁷ timber costs, fire suppression costs and project
 12639 effectiveness. Project types that may be analyzed using the wildfire module include:

- 12640 ▪ Defensible space.
- 12641 ▪ Hazardous fuels reduction activities.
- 12642 ▪ Ignition-resistant construction.

12643 In some cases, the Historic/Professional Expected Damages methodology may be appropriate if
 12644 historical damage data and return periods/event frequencies are known for at least two events.

⁴²⁷ LANDFIRE data provides information for landscape assessment, analysis and management. The data is from a shared program between the wildland fire management programs of the U.S. Forest Service and U.S. Department of the Interior.

12645 Wildfire mitigation projects may qualify for ecosystem services benefits if they protect an existing
 12646 natural area. Applying ecosystem services benefits to wildfire mitigation projects should be evaluated
 12647 on a case-by-case basis, as the design of these projects can vary widely. In general, defensible space
 12648 and ignition-resistant construction projects are not likely to qualify for ecosystem services benefits. A
 12649 wildfire mitigation project may not include ecosystem services benefits if:

12650 ▪ It does not protect at least one contiguous acre of natural space, such as a forest or
 12651 grassland.

12652 ▪ It involves the application of chemicals or other nonnatural substances.

12653 **B.9.2.5.1. Pre-Calculated Benefits for Post Fire Flood Risk Reduction**

12654 FEMA developed pre-calculated benefits for certain mitigation activities that reduce flood risk in
 12655 wildfire impacted areas. Specifically, benefits of \$5,250 per acre are available for the following post-
 12656 wildfire mitigation project types:

12657 ▪ Soil stabilization.

12658 ▪ Flood diversion (which includes flash flooding prevention and sediment reduction measures).

12659 ▪ Reforestation.

12660 If the cost of a given project does not exceed \$5,250 per acre, it will be deemed cost-effective using
 12661 the pre-calculated benefits methodology. Pre-calculated benefits cannot be combined with benefits
 12662 from a traditional BCR calculated using the BCA Toolkit.

12663 To use the post-wildfire pre-calculated benefits, the applicant would multiply the number of acres
 12664 being mitigated by the total benefits per acre of \$5,250. For example, if the project is to provide
 12665 ground cover, soil stabilization and replanting for 1,000 acres and the benefit per acre is \$5,250,
 12666 the total project benefit amount would equal \$5,250,000 (\$5,250 multiplied by the number of
 12667 acres—in this case, 1,000).

12668 These pre-calculated benefits are based on the risk reduction and ecosystem service benefits
 12669 provided by the forest and other vegetation with primary emphasis on the reduced flood risk these
 12670 systems provide. Post wildfire mitigation projects that demonstrate they are cost-effective (a BCR
 12671 ratio 1.0 or greater) using the pre-calculated benefits do not need to submit a separate BCA.

12672 For up-to-date information on the dollar value of the pre-calculated benefits, see FEMA’s [“Benefits-
 12673 Cost Analysis” webpage](#).

12674 **B.9.2.6. Feasibility and Effectiveness**

12675 Projects must be consistent with [Part 5](#). Mitigation projects assisted by HMA programs must be both
 12676 feasible and effective at mitigating the risks of the hazard(s) for which the project was designed. A

12677 project’s feasibility is demonstrated through conformance with accepted engineering practices,
 12678 established codes, standards, modeling techniques or best practices.

12679 Wildfire mitigation projects must be technically feasible, effective at reducing risk, and designed and
 12680 implemented in conformance with all federal, state and local requirements, including state and local
 12681 building codes and land-use restrictions. FEMA urges the community or any entity implementing
 12682 wildfire mitigation to use the materials and technologies that are in accordance with the ICC, FEMA,
 12683 the U.S. Fire Administration and the NFPA [Firewise](#) recommendations, whenever applicable.

12684 **B.9.2.7. Environmental and Historic Preservation**

12685 All subapplications submitted to FEMA must meet the EHP criteria in [Part 4](#). All subapplications must
 12686 provide the information described in [Part 6](#) so that FEMA may perform the EHP review.

12687 The [Wildfire Technical Review](#) EHP job aid lists the documentation needed for projects for FEMA to
 12688 complete the EHP compliance review process.

12689 **B.9.3. WILDFIRE MITIGATION: APPLICATION AND SUBMISSION INFORMATION**

12690 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
 12691 should have a scoping narrative in accordance with [Part 6](#). Project-specific criteria are highlighted
 12692 below.

12693 Wildfire mitigation projects can be assisted by HMGP, HMGP Post Fire or BRIC. FEMA may request
 12694 additional information after the subapplication has been submitted to ensure all necessary
 12695 information is received. However, all information required by the regulations and the HMA Guide
 12696 must be received before an assistance decision and award or final approval can be made. The
 12697 required information includes:

12698 ▪ Documentation that demonstrates that no duplication of programs will occur, that other
 12699 federal programs have been investigated, and that the applicant has coordinated with other
 12700 appropriate federal agencies.

12701 ▪ A statement acknowledging that a final operations and maintenance plan will be submitted
 12702 to FEMA before project closeout.

12703 ▪ A map of the wildfire severity within the project area(s). Wildfire severity, also referred to as
 12704 wildfire intensity, is influenced by fuels, climate and topography. Identifying the wildfire
 12705 severity within a project area will demonstrate the potential for dangerous wildfires to occur.

12706 ▪ A map of the wildfire frequency within the project area(s). Wildfire frequency, also referred to
 12707 as wildfire burn recurrence or wildfire return interval, is determined using historical fire report
 12708 data. Identifying the wildfire frequency within a project area will demonstrate how often a
 12709 wildfire is likely to occur.

- 12710 ▪ A FIRM showing project location and demonstrating the flood zone in which the project is
- 12711 located.

12712 **B.9.3.1. Property Location**

12713 Provide map(s) showing the project area and the structures’ relationship to the WUI or forested,

12714 range or grassland area. The maps should include the following elements:

- 12715 ▪ **Contour data** on the map or an additional map with the project’s boundary and contours.

- 12716 ▪ **Latitude and longitude** to the nearest sixth decimal place for all corners of the project area
- 12717 so the treatment area’s outline can be determined.

- 12718 ▪ **Ignition-resistant construction:** All structures within the project area(s) should be highlighted
- 12719 on the map.

- 12720 ▪ **Hazardous fuels reduction and defensible space:** Specific treatment polygons should be
- 12721 identified on the map. Maps should also identify the locations of the structures proposed to
- 12722 be protected by the project and the distance between the project area and the structures.

- 12723 ▪ **Property address(es) of each structure** involved in the mitigation project. This includes the
- 12724 street name and number; city, county or parish; state; and ZIP code. A post office box number
- 12725 is not an acceptable address. If the address provided does not match with the structure(s) to
- 12726 be mitigated, provide photos or a site map with the structure(s) footprint(s) identified.

- 12727 ▪ **Structure-specific details:** If the project is protecting multiple structures, this information
- 12728 must be provided, with supporting documentation, for each structure. Provide the following
- 12729 information about the existing structure(s):

- 12730 ○ For hazardous fuels reduction and defensible space projects, a list of the type of
- 12731 structures to be protected (e.g., residential, police station, hospital).

- 12732 ○ Property-level rating of wildfire risk for each home or community and the scale used to
- 12733 measure the rating levels (if applicable).

- 12734 ○ For ignition-resistant construction projects, in addition to the structure type, the following
- 12735 information about each structure:

- 12736 – Year the structure was built.

- 12737 – Description of the structure type (e.g., elementary school, government building).

- 12738 – Description of the construction type (e.g., wood framed, masonry/brick, concrete or
- 12739 steel).

- 12740 – Structure information, including the size of the structure and number of stories.

- 12741 – The average number of occupants residing in each structure.
- 12742 – Description of the foundation.
- 12743 – Photographs of the structure to be protected by the wildfire mitigation project.
- 12744 Provide a descriptive caption explaining what each photo shows, the direction it was
- 12745 taken and the side of the structure shown (e.g., “east side of structure, looking
- 12746 west”).

12747 **B.9.3.2. Activities and Schedule**

12748 All subapplications should include an activities description referencing industry standards or project
12749 plans and specifications and a schedule for completing the activities.

12750 The project narrative should identify the proposed mitigation action and structures to be mitigated,
12751 including a description of the proposed activities and a clear explanation of how the project will
12752 mitigate risk. The project narrative should include key milestones and correspond with the design
12753 information, project schedule and budget.

12754 The following items should be included in the project narrative:

- 12755 ▪ The wildfire hazard being mitigated, including previous wildfires, damage history and the
12756 future potential wildfire risk of the project area(s).
- 12757 ▪ A rationale for effectiveness. Eligible wildfire mitigation projects must demonstrate mitigation
12758 of the risk from wildfire to residential and nonresidential buildings and structures, including
12759 public and commercial facilities. Projects must be in a WUI, be adjacent to or intermingled
12760 with the built environment, and provide protection to life and the built environment from
12761 future wildfires.
- 12762 ▪ Quantification of the project area where the wildfire mitigation will occur (e.g., 100 acres of
12763 fuels reduction) or quantify the area for each type of treatment as it relates to the projected
12764 structures (i.e., a 30-foot buffer of defensible space around each identified structure).
- 12765 ▪ For hazardous fuels reduction projects, a description of the treatment plan or landscaping
12766 plan for all vegetation that would be removed or affected by the project for each project site.
12767 This should include a description of the types of vegetation that would be removed, the
12768 method of removal (herbicide, hand tools, bulldozer), and the overall goal of the vegetation
12769 removal (decrease vegetation density, remove ladder fuels, create a level and vegetation-free
12770 site).
- 12771 ▪ If vegetation will be planted, details about the types of vegetation and the method of
12772 planting.

- 12773 ■ A description of the distance from the treatment site to protected structures. A hazardous
12774 fuels reduction project could protect numerous structures that are within 2 miles of the
12775 treatment area, and the risk reduction for the target community or buildings must be
12776 demonstrated in the scoping narrative and supporting documentation. Projects in excess of 2
12777 miles from structures are ineligible.

- 12778 ■ For defensible space projects, a description of the proposed defensible space activities for
12779 each property. Describe the treatment plan or landscaping plan for all vegetation that would
12780 be removed. In addition, describe any other facilities to be addressed, such as propane
12781 tanks, wood decks or fences, and the method of mitigation. Provide the treatment radius
12782 around each structure receiving mitigation.

- 12783 ■ For fire-resistant materials projects, proposed conceptual designs, project plans and
12784 specifications. Fire-resistant materials projects are required to include a defensible space
12785 component as part of the application, or each property owner must have previously created
12786 defensible space and agrees to maintain it.

- 12787 ■ A description of how the project conforms to current codes and best practices. FEMA urges
12788 the community or any entity implementing wildfire mitigation to use the materials and
12789 technologies that are in accordance with International WUI Code, FEMA, U.S. Fire
12790 Administration and the NFPA Firewise recommendations, whenever applicable.

- 12791 ■ A description of the equipment that will be used for the project. Include the likely maximum
12792 use of this equipment on at least an annual basis. If available, include details about known
12793 or planned restrictions to the construction equipment such as seasonal or daily restrictions.

- 12794 ■ A description of all potential construction debris, including vegetation, that could be
12795 generated by the project. Provide details on the method of disposal of vegetation (such as
12796 grazing, chipping or mulching, or hauling to an off-site location) and construction debris,
12797 including potential locations and the legal status of disposal sites (whether the site is a
12798 licensed landfill).

12799 **B.9.3.3. Budget**

12800 Subapplications must include detailed line-item costs in the project budgets for each mitigation item
12801 provided in the scope of work. Well-documented project budgets contain quantities, unit costs and a
12802 source for each unit cost. Lump-sum estimates are not acceptable. The assistance of a licensed
12803 engineer, architect or contractor (wildfire expert) may be required to help develop the project cost.

12804 Subapplicants may apply for subrecipient management costs to cover administrative costs.
12805 Management costs must be included in the subapplication budget as a separate line item. More
12806 information about the requirements for management cost requests can be found in [Part 13](#).

12807 Allowable costs are costs that are necessary and reasonable for the proper and efficient
12808 performance and administration of the federal award. They may include but are not limited to:

- 12809 ▪ Engineering services for design, structural feasibility analysis, geotechnical assessments and
12810 budget preparation.
- 12811 ▪ Project administration and construction management.
- 12812 ▪ Soil sampling.
- 12813 ▪ Permit costs.
- 12814 ▪ Surveying and inspection.
- 12815 ▪ Labor costs.
- 12816 ▪ Management costs (see [Part 13](#)).
- 12817 ▪ All construction activities.
- 12818 ▪ List of equipment, including cost for each item.
- 12819 ▪ Debris removal and disposal costs (e.g., hauling, chipping).
- 12820 ▪ Erosion control.
- 12821 ▪ List of construction materials, including unit cost for each item.
- 12822 A cost per structure should be provided for defensible space and ignition-resistant construction
12823 projects, and a cost per acre should be provided for hazardous fuels reduction projects.
- 12824 Maintenance costs should reflect the costs associated with mitigation being maintained for the
12825 entire project useful life. Maintenance costs will vary, depending on project type, geographic location,
12826 climate and vegetation type. For example:
- 12827 ▪ **Defensible space:** Grassland vegetation was mowed and forested vegetation was removed
12828 within a 100-foot radius of the structure. At a minimum, to maintain the project
12829 effectiveness, the grassland regrowth must be mowed on a consistent basis (dependent on
12830 geographic location and precipitation) throughout the one-year project useful life. The
12831 forested regrowth must be hand trimmed at least every three years throughout the 20-year
12832 project useful life.
- 12833 ▪ **Hazardous fuels reduction:** 150 acres of dense forested vegetation was thinned out by
12834 pruning the forested canopy. To maintain effectiveness, the forested regrowth must be hand
12835 trimmed at least every three years throughout the 20-year project useful life.
- 12836 ▪ **Ignition-resistant construction:** Brush was removed within a 100-foot radius of the structure
12837 to create the required defensible space, and a fire-resistant roof was put on the structure. At
12838 a minimum, to maintain the project effectiveness, the brush regrowth must be trimmed on a

12839 consistent basis (dependent on drought conditions) throughout the four-year project useful
 12840 life. Minimal roof maintenance should be required within the 10-year project useful life.

- 12841 ▪ **Flash flooding prevention measures:** Contour log felling was completed for a width of about
 12842 500 feet perpendicular to a slope denuded by wildfire. The logs were staked in place to
 12843 prevent them from rolling downhill. Soil was tamped between the logs and the ground
 12844 surface to prevent water from eroding under the logs. A trench approximately 1-foot deep
 12845 was dug on the uphill side of each log to catch debris. To maintain project effectiveness, the
 12846 debris trenches must be cleared annually until vegetation on the slope is re-established
 12847 (about three years).

12848 **B.9.4. WILDFIRE MITIGATION: SUBAWARD IMPLEMENTATION**

12849 The basic steps in implementing an approved HMA wildfire project are:

- 12850 1. Pre-construction (carry out design process; site assessments, seek technical consultant; prepare
 12851 cost estimate; obtain construction permits, including requirement environmental permits; hire
 12852 construction manager/contractor).
- 12853 2. Coordinate with appropriate state, local tribal and territorial agencies and private nonprofits as
 12854 appropriate.
- 12855 3. Clear/prepare site for construction activities.
- 12856 4. Construct/implement/install mitigation measures included in the project.
- 12857 5. Achieve substantial completion.
- 12858 6. Complete inspections and obtain Certificate of Occupancy (if required).
- 12859 7. Complete monitoring and maintenance.

12860 Post-award monitoring helps ensure subapplicants/subrecipients are achieving the objectives of the
 12861 federal award consistent with the performance goals and milestones described in the subaward. To
 12862 assist the recipient in monitoring wildfire projects, the following milestone information or events
 12863 should be included in Quarterly Progress Reports:

- 12864 ▪ If the subrecipient is acquiring contract support, the subrecipient should report when the
 12865 request for proposal is completed, when the contract is out for bid, when the bid period
 12866 closes, when proposals are reviewed, when the contractor is selected and the date of the
 12867 kick-off meeting.
- 12868 ▪ Describe the current status including a summary of:
 - 12869 ○ Recent progress and planned work.
 - 12870 ○ Risks identified or changes from the milestones/deliverables submitted with the scope of
 12871 work (e.g., financial concerns, coordination issues with state or local governments and

12872 utilities, project management or contracting issues, legal disputes, and significant
 12873 changes impacting construction activities or timelines such as delays due to weather,
 12874 materials, procurement or labor issues).

12875 ▪ When construction has started, is substantially complete or completed.

12876 ▪ Any other milestones that have been identified in the subapplication or agreed to or are
 12877 required by the recipient.

12878 **B.9.5. WILDFIRE MITIGATION: BUDGET AND SCOPE CHANGE**

12879 All budget and scope changes must have prior FEMA approval consistent with [Part 8](#). Because the
 12880 final design may not be completed prior to award, once the project is awarded, the design must be
 12881 finalized by a licensed professional engineer or other qualified professional. If the scope of work or
 12882 cost estimate changes as a result of completing the final design or to address permitting
 12883 requirements, prior approval from FEMA is required.

12884 **B.9.6. WILDFIRE MITIGATION: CLOSEOUT**

12885 Recipients and subrecipients must closeout projects in a timely manner consistent with [Part 9](#).

12886 In addition to the typical HMA program closeout procedures, closeout of wildfire projects generally
 12887 includes:

12888 ▪ Property site inventory listing of all properties mitigated.

12889 ▪ Final inspection report with the name of the inspector and date of inspection. The report
 12890 should include the following:

12891 ○ A narrative of all the components of the project that were completed and verification that
 12892 the scope of work was completed and is consistent with activities identified in the scope
 12893 of work.

12894 ○ Photographs of the project area(s) with clear labels.

12895 ○ A map of the project area(s) with accurate latitude/longitude to the nearest sixth
 12896 decimal place.

12897 ▪ Clearly labeled photographs of the project site before and after mitigation. Photos should
 12898 confirm the scope of work is completed.

12899 In addition, the closeout of wildfire mitigation projects includes submitting an operations and
 12900 maintenance plan to FEMA for review prior to project closeout. In the operations and maintenance
 12901 plan, the recipient must confirm the plan is consistent with the HMA Guide, meets or exceeds local
 12902 codes, and is in conformance with appropriate fire-related codes.

12903 At a minimum, the operations and maintenance plan must include all the following information:

- 12904 ▪ Information demonstrating the completed wildfire project will be maintained to achieve the
12905 proposed hazard mitigation.
- 12906 ▪ A description of the post-closeout maintenance activities that will be undertaken to maintain
12907 the project area(s) or site(s).
- 12908 ▪ The period of time the community is committing to maintain the area and/or project site,
12909 which must be consistent with the project useful life in the BCA.
- 12910 ▪ The department and job position that will be responsible for maintaining the project after the
12911 construction has ended.
- 12912 ▪ Estimated costs for annual maintenance of the project.
- 12913 ▪ The schedule for implementation of the maintenance activities.

12914 **B.9.7. WILDFIRE MITIGATION: RESOURCES**



12915 **Wildfire Mitigation Resources**

- 12916 ▪ FEMA BCA webpage: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>
- 12917 ▪ EHP review job aids: [https://www.fema.gov/grants/guidance-tools/environmental-](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
12918 [historic/preparation-resources](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
- 12919 ▪ National Fire Protection Association Firewise: [https://www.nfpa.org/Public-Education/Fire-](https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA)
12920 [causes-and-risks/Wildfire/Firewise-USA](https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA)
- 12921 ▪ International Code Council: [https://www.iccsafe.org/products-and-services/i-codes/2018-](https://www.iccsafe.org/products-and-services/i-codes/2018-i-codes/irc/)
12922 [i-codes/irc/](https://www.iccsafe.org/products-and-services/i-codes/2018-i-codes/irc/)
- 12923 ▪ U.S. Fire Administration: <https://www.usfa.fema.gov/>
- 12924 ▪ National Fire Protection Association: [https://www.nfpa.org/codes-and-standards/all-codes-](https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=225)
12925 [and-standards/list-of-codes-and-standards/detail?code=225](https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=225)
- 12926 ▪ FEMA HMA job aids: <https://www.fema.gov/grants/mitigation/job-aids>
- 12927 ▪ FEMA HMGP Post Fire: <https://www.fema.gov/grants/mitigation/post-fire>
- 12928 ▪ FEMA P-737, *Homebuilders Guide to Construction in Wildfire Zones*:
12929 https://www.fema.gov/sites/default/files/2020-08/fema_p_737_0.pdf
- 12930 ▪ FEMA P-754, *Wildfire Hazard Mitigation Handbook for Public Facilities*:
12931 https://www.fema.gov/sites/default/files/2020-08/fema_p_754.pdf

- 12932 ▪ International WUI Code 2018 (or most recent version):
12933 [https://codes.iccsafe.org/content/IWUIC2018/effective-use-of-the-international-wildland-](https://codes.iccsafe.org/content/IWUIC2018/effective-use-of-the-international-wildland-urban-interface-code)
12934 [urban-interface-code](https://codes.iccsafe.org/content/IWUIC2018/effective-use-of-the-international-wildland-urban-interface-code)
- 12935 ▪ LANDFIRE Program: <https://www.landfire.gov/>
- 12936 ▪ National Fire Protection Association 703, *Standard for Fire-Retardant Treated Wood and*
12937 *Fire-Retardant Coatings for Building Materials*: [https://www.nfpa.org/codes-and-](https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=703)
12938 [standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=703](https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=703)
- 12939 ▪ National Fire Protection Association 914, *Code for Fire Protection of Historic Structures*:
12940 [https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-](https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=914)
12941 [standards/detail?code=914](https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=914)
- 12942 ▪ National Fire Protection Association 1141, *Standard for Fire Protection Infrastructure and*
12943 *Land Development in Suburban Rural Areas*: [https://www.nfpa.org/codes-and-](https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1141)
12944 [standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1141](https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1141)
- 12945 ▪ National Fire Protection Association 1144, *Standard for Reducing Structure Ignition*
12946 *Hazards from Wildland Fire*: [https://www.nfpa.org/codes-and-standards/all-codes-and-](https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1144)
12947 [standards/list-of-codes-and-standards/detail?code=1144](https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1144)

12948 **B.10. Retrofit**

12949 **B.10.1. RETROFIT: OVERVIEW**

12950 Retrofitting is any change made to an existing structure to reduce or eliminate the possibility of
12951 damage to that structure from flooding, tsunami, erosion, high winds, earthquakes, wildfires, snow or
12952 other hazards. Retrofits may be structural or nonstructural in nature.

12953 **B.10.1.1. Structural Retrofit**

12954 Structural retrofitting is used to address structural deficiencies in existing buildings and structures.
12955 Since building codes generally are not retroactive, existing buildings and structures only comply with
12956 codes in effect at the time of their design and construction. Therefore, existing buildings and
12957 structures may not meet the current standards and codes for new construction. In some
12958 circumstances, when a building undergoes alteration, repair, addition or change of occupancy,
12959 current building codes can be triggered for structural updates to meet the code requirements and
12960 desired building performance. Outside of these circumstances, local authorities may require
12961 mandatory retrofitting for certain vulnerabilities in existing buildings and structures. The [International](#)
12962 [Existing Building Code](#) and reference standards are commonly used for structural retrofitting to
12963 achieve a certain level of risk reduction.

12964 **B.10.1.2. Nonstructural Retrofit**

12965 Nonstructural retrofitting involves the modification of a building or facility's nonstructural elements.
12966 These are actions such as bracing building contents to prevent earthquake damage or elevating
12967 heating and ventilation systems to minimize or prevent flood damage. Nonstructural retrofits may be
12968 done in conjunction with or independently from structural retrofits.

12969 **B.10.1.3. Seismic Structural Retrofit**

12970 The goal of a seismic structural retrofitting project is to reduce the risk of death, serious injury and
12971 property damage during an earthquake event. This is typically accomplished by modifying and
12972 strengthening a building's seismic load-resisting system to reduce or eliminate known seismic
12973 deficiencies. Some vulnerable building types in high seismic regions are likely candidates for seismic
12974 structural retrofitting projects, including unreinforced masonry, nonductile concrete, weak/soft first
12975 stories and tilt-up buildings. Local authorities may issue a seismic ordinance requiring the evaluation
12976 and retrofit of certain vulnerable building types. An evaluation completed in accordance with the
12977 latest published edition of [ASCE/SEI 41: Seismic Rehabilitation of Existing Buildings](#) is often
12978 necessary to identify the deficiencies that may require seismic structural retrofitting. Sometimes new
12979 structural elements are added. In many cases, existing elements can be enhanced to meet an
12980 improved level of performance. For some critical or essential buildings in high seismic regions such
12981 as school buildings or hospitals, new construction in compliance with the most current building
12982 codes often achieve a desired better performance.

12983 The following are common examples of seismic structural retrofitting project elements:

- 12984 ▪ Adding new lateral load-resisting elements including concrete or steel shear walls or
12985 structural steel-braced or moment frames.
- 12986 ▪ Adding reinforcement, shotcrete overlay, confinement or post tensioning to unreinforced
12987 masonry walls.
- 12988 ▪ Adding new vertical load resisting elements to prevent floor or roof collapse.
- 12989 ▪ Providing continuous load paths for lateral load-resisting systems.
- 12990 ▪ Eliminating weak or soft stories by infilling openings or adding moment frames.
- 12991 ▪ Increasing concrete member ductility with column jackets or steel or fiber wraps.
- 12992 ▪ Modifying existing steel-braced frames with buckling restrained/resistant braces or other.
- 12993 ▪ Installing base isolation systems or adding damping elements.
- 12994 ▪ Adding pneumatically applied concrete, weld plates or plywood panels to existing lateral load-
12995 resisting systems.
- 12996 ▪ Strengthening roof and floor diaphragms and their connections to supporting walls and
12997 lateral load-resisting systems.
- 12998 ▪ Eliminating plan irregularities by modifying floor areas or adding seismic joints.
- 12999 ▪ Enhancing detailing of structural elements to improve ductility such as pre-1994 special
13000 steel moment frame joint detailing.

13001 More information on seismic vulnerabilities of different building types and specific retrofitting
13002 techniques, see [FEMA P-547: Techniques for the Seismic Rehabilitation of Existing Buildings](#)
13003 (February 2007).

13004 **B.10.1.4. Seismic Nonstructural Retrofit**

13005 The goal of seismic nonstructural retrofitting is to reduce the risk of death, serious injury and
13006 damage during a future earthquake event. This is typically accomplished by securing, bracing or
13007 isolating architectural elements; mechanical, electrical and plumbing equipment; and building
13008 contents. Building codes have specific requirements for anchoring major architectural and
13009 mechanical, electrical, and plumbing components. Before undertaking a seismic nonstructural
13010 retrofitting project, subapplicants should first ensure the structural load-bearing and hazard load-
13011 resisting systems to support their nonstructural components or systems are adequate, especially
13012 some seismically vulnerable structures such as unreinforced masonry or nonductile concrete frame
13013 buildings that may need to be retrofitted. Nonstructural retrofitting typically has higher BCR than

13014 structural retrofitting; however, it makes little sense to strap down computer monitors if the building
13015 collapses in an earthquake.

13016 Examples of seismic nonstructural retrofitting include providing secure attachments for the following:

- 13017 ▪ Exterior façade panels or brick masonry.
- 13018 ▪ Architectural ornaments, roof parapets and chimneys.
- 13019 ▪ Heavy interior partition walls.
- 13020 ▪ Utility and mechanical equipment/systems such as heating, ventilation, air conditioning,
13021 water/sewer, gas, electric, ductwork, pipes, motors, pumps and fans.
- 13022 ▪ Communication equipment and distribution.
- 13023 ▪ Drop ceilings and pendant lighting.
- 13024 ▪ Lens covers on fluorescent light fixtures.
- 13025 ▪ Mirrors, paintings, clocks and similar heavy/fragile wall-mounted objects.
- 13026 ▪ Computers and monitors.
- 13027 ▪ Filing cabinets, bookcases and lockers.

13028 Other examples of nonstructural retrofitting seismic mitigation include:

- 13029 ▪ Removing heavy ornaments or other features determined not to be needed.
- 13030 ▪ Replacing or jacketing hollow clay-tile walls, especially in stairways and exit corridors.
- 13031 ▪ Arranging building contents to reduce risk of falling hazards.
- 13032 ▪ Storing fragile items and equipment on or near floors.
- 13033 ▪ Securing all dangerous chemicals to prevent container breakage.

13034 **B.10.1.5. Wind Retrofit**

13035 Wind retrofit projects will help reduce or eliminate building and content damage from wind and wind-
13036 driven rain. Wind retrofits may also provide better protection for occupants; however, buildings with
13037 wind retrofits do not provide near-absolute protection from wind and windborne debris for occupants
13038 as a safe room would.

13039 Retrofitting one element of a building without accounting for wind vulnerabilities in the nonretrofitted
13040 elements can lead to ineffective mitigation. Simply protecting one element does not necessarily

13041 achieve the goal of protecting the building and its contents during a high-wind event, nor does it
 13042 ensure the building will be functional. Even when a retrofitted element performs as intended, the
 13043 building as a whole may not achieve the target performance level intended by the retrofit. To achieve
 13044 the intended performance level, all building elements that may be vulnerable to wind damage should
 13045 be identified, and a comprehensive plan for executing the needed retrofits should be developed.

13046 Wind retrofits involve strengthening connections to ensure a continuous load path from the roof to
 13047 the foundation; protecting openings with impact-resistant glazing, shutters or doors rated for higher
 13048 winds; and proper anchoring of components, cladding and rooftop equipment. As a best practice, all
 13049 installed shutters, windows and door assemblies should have labels showing their wind pressure
 13050 and/or windborne debris resistance. Such labels ensure the assemblies have been tested and are
 13051 suitable for their intended purpose. Wind retrofit projects for one- and two-family residential
 13052 buildings must be designed in conformance with the design criteria found in [FEMA P-804: Wind](#)
 13053 *Retrofit Guide for Residential Buildings*.

13054 Examples of wind retrofit projects include:

- 13055 ▪ Replacing roof and wall coverings with those capable of resisting high winds.
- 13056 ▪ Installing and improving roof covering underlayments such as securing roof deck
 13057 attachments and providing a secondary water barrier.
- 13058 ▪ Protecting openings (windows, doors, garage doors, soffits and vents) to resist high winds,
 13059 windborne debris and wind-driven rain.
- 13060 ▪ Strengthening vents and soffits.
- 13061 ▪ Connecting structural systems to provide a continuous path for all loads (gravity, uplift and
 13062 lateral) to be passed from the building exterior surfaces to the ground through the
 13063 foundation.
- 13064 ▪ Strengthening overhangs.
- 13065 ▪ Bracing gable end walls.
- 13066 ▪ Anchoring rooftop equipment.
- 13067 ▪ Strengthening connections to attached structures.

13068 Hurricane-prone regions, as defined by the most current publication of [ASCE/SEI 7: Minimum Design](#)
 13069 *Loads for Buildings and Other Structures*, may have additional requirements for protecting buildings
 13070 from wind and wind-borne debris. More information can be found in FEMA P-804 and [FEMA](#)
 13071 [Hurricane Michael Recovery Advisory 1: Successfully Retrofitting Buildings for Wind Resistance](#) (June
 13072 2019).

13073 **B.10.1.6. Wildfire Retrofit**

13074 Retrofitting for wildfire involves structurally protecting buildings using noncombustible materials and
 13075 technologies. Wildfire retrofits are more effective in conjunction with other wildfire mitigation
 13076 measures.

13077 Wildfire retrofitting also includes replacing water systems that have been burned and have caused
 13078 contamination. Wildfires generate intense heat that can adversely impact water system components
 13079 both on the surface and underground. If intense heat modifies the chemical properties of water
 13080 system components, chemicals might leach into the water, causing contamination. Infrastructure
 13081 retrofits that reduce future risk to existing utility systems, including water systems, are eligible for
 13082 HMA under all our programs. The mitigation measures that are applied to the utility system can
 13083 address more than just the hazard that caused the damage. In addition to replacing water systems
 13084 that have been burned, HMA can be used to mitigate:

- 13085 ▪ System components that have not been damaged but are like other systems that have
 13086 sustained damage.
- 13087 ▪ Undamaged portions of systems that have been partially damaged.

13088 **B.10.1.7. Snow Retrofit**

13089 Buildings and infrastructure can be protected from the impacts of winter storms with the following
 13090 techniques:

- 13091 ▪ Adding building insulation to attic floors and ensuring adequate ventilation of the attic area
 13092 can prevent roof snow melt that can cause ice dams to form and greater chances of water
 13093 infiltration.
- 13094 ▪ Retrofitting buildings to withstand snow loads and prevent roof collapse. See FEMA design
 13095 guide: [Three-Dimensional Roof Snowdrifts](#) (August 2019) for guidance on determining roof
 13096 drift loads.

13097 **B.10.2. RETROFIT: ELIGIBILITY**

13098 All other retrofit subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#).

13099 [Table 36](#) highlights eligible retrofit activities.

13100 **Table 36: Eligible Retrofit Activities**

Eligible Activities	HMGP	HMGP Post Fire	BRIC	FMA
Seismic structural and nonstructural	Yes	Yes	Yes	No
Wildfire	Yes	Yes	Yes	No

Eligible Activities	HMGP	HMGP Post Fire	BRIC	FMA
Snow	Yes	Yes	Yes	No

13101 **B.10.2.1. Cost-Effectiveness**

13102 Applicants and subapplicants must demonstrate that mitigation projects are cost-effective. Projects
 13103 must be consistent with [Part 5](#).

13104 Pre-calculated benefits are available for hurricane wind retrofit measures.

13105 **B.10.2.1.1. Pre-Calculated Benefits for Hurricane Wind Retrofit Measures: One- and Two-Family**
 13106 **Residences**

13107 Hurricane wind retrofit projects are eligible for assistance under the HMGP and BRIC programs.
 13108 FEMA has determined that applicants and subapplicants may use pre-calculated benefits to
 13109 demonstrate the cost-effectiveness of wind retrofit projects that comply with FEMA P-804. Using pre-
 13110 calculated benefits eliminates the requirement for applicants or subapplicants to conduct a separate
 13111 BCA for a hurricane wind retrofit project that meets the criteria identified in [Table 37](#). The benefits
 13112 are based on FEMA’s existing methodology for evaluating the cost-effectiveness of residential wind
 13113 retrofit projects and use updated 2014 construction costs for the measures outlined in FEMA P-804.

13114 **Pre-Calculated Benefits for Wind Retrofits**

13115 Pre-calculated benefits can be used for hurricane wind retrofit projects under the HMGP and
 13116 BRIC programs. These pre-calculated benefits will streamline the cost-effectiveness
 13117 determination for residential wind retrofit projects.

13118 For one- and two-family residences, a wind retrofit project is considered cost-effective if the total
 13119 project costs are less than the costs listed in [Table 37](#).

13120 **Table 37: Pre-Calculated Benefit Amounts for Wind Retrofit Projects**

Mitigation Package Type	Roof Replacement Project	Maximum Costs
Intermediate protection	No	\$13,153
	Yes	\$24,920
Advanced protection	No	\$40,252
	Yes	\$52,018

13121 To use these benefit amounts, the applicant must meet the following requirements:
 13122

- 13123 ■ Wind retrofit projects must be for residential buildings, excluding manufactured homes, and
13124 must comply with FEMA P-804.

- 13125 ■ Residential structures must be located within the 120-mph wind speed zone for Occupancy
13126 Category II Buildings in accordance with ASCE/SEI 7.

- 13127 ■ Applications must include maps that clearly indicate the structures to be retrofitted as being
13128 in the 120-mph wind speed zone to be eligible to use the pre-calculated benefits.

- 13129 ○ Areas eligible to use the pre-calculated benefits are identified on the list of states and
13130 territories and their associated counties, parishes and boroughs.

- 13131 – **States, boroughs, counties, parishes and territories that meet the qualification**
13132 **requirements for pre-calculated benefits:** This includes areas completely located
13133 within the 120-mph wind zone. These areas are automatically eligible to use the pre-
13134 calculated benefit-costs as long as the application includes a map with the structures
13135 clearly indicated on it.

- 13136 – **States, boroughs, counties, parishes and territories that are partially located in the**
13137 **120-mph wind zone:** For structures located in these areas FEMA will need to make
13138 the determination on a case-by-case basis if the pre-calculated benefits can be used.
13139 Applicants and subapplicants will need to submit a map with the structures clearly
13140 indicated on it to FEMA, who will then determine if the structure is located in the wind
13141 zone and can use the pre-calculated benefits.

- 13142 Budgets submitted for a hurricane wind retrofit project using the pre-calculated benefits must be
13143 developed using industry-accepted cost-estimation standards, vendor estimates or other sources.
13144 The costs identified cannot be used to estimate or develop application project costs. Only
13145 documented, eligible costs for completed work will be reimbursed. The benefits in [Table 37](#) above
13146 may be adjusted by the applicant or subapplicant using the most current locality multipliers included
13147 in industry-accepted cost and pricing guides for construction.

- 13148 If a multiplier is used, a copy of the source document must be included as part of the application for
13149 review and the methodology used to determine the increase must be demonstrated.

- 13150 The pre-calculated benefits for wind retrofit projects cannot be combined with other benefits, such
13151 as those from the cost-effectiveness determination for acquisition and elevations or from the BCA
13152 Toolkit.

- 13153 For up-to-date information on the dollar value of the pre-calculated benefit, see FEMA's "[Benefit-Cost](#)
13154 [Analysis](#)" webpage.

13155 **B.10.2.1.2. Pre-Calculated Benefits for Hurricane Wind Retrofit Measures – Nonresidential**
 13156 **Structures**

13157 Nonresidential buildings in windborne debris regions have two options of mitigation packages
 13158 eligible for the pre-calculated benefits:

- 13159 ▪ **Option 1:** Opening protection for doors, windows and louvers against wind-borne debris,
 13160 wind-driven rain and high wind pressure; and roof retrofit, which consists of securing rooftop
 13161 equipment, replacing roof decking and covering.
- 13162 ▪ **Option 2:** Opening protection, roof retrofit and improvement to or creating a continuous load
 13163 path from the roof to the foundation.

13164 Eligible structures must have primary structural framing that consists of steel, concrete or reinforced
 13165 masonry. Structures composed of other building materials, such as wood, steel stud and
 13166 unreinforced masonry, are not eligible for this pre-calculated benefit. When retrofitted, structures will
 13167 comply with the loading requirements of the latest edition of the IBC, International Existing Building
 13168 Code, ASCE/SEI 7, FEMA 577: *Design Guide for Improving Hospital Safety in Earthquakes, Floods,*
 13169 *and High Winds* (June 2007), and the requirements of the locally enforced building code. In the
 13170 event of conflicting requirements, the most stringent one should be used.

13171 Applicants must provide maps with structures clearly indicated as being in a windborne debris region
 13172 to be eligible to use the pre-calculated benefits.⁴²⁸ Additionally, the project must have a useful life of
 13173 at least 25 years.

13174 Mitigation projects meeting the above criteria are considered cost-effective if the mitigation projects
 13175 cost less than 10 percent of the replacement cost value. This eliminates the requirement for
 13176 applicants to conduct a separate BCA for eligible projects. The benefits are based on FEMA's existing
 13177 methodology for evaluating the cost-effectiveness of nonresidential wind retrofit projects.

13178 Applicants must document the source used to determine the replacement cost value. Additionally,
 13179 budgets submitted with projects for hurricane wind retrofits that use the pre-calculated benefits
 13180 must be developed using industry cost-estimation standards, vendor estimates or other industry
 13181 acceptable sources. The benefits identified here cannot be used to estimate or develop application
 13182 project costs. Projects must still meet all other HMA program requirements.

13183 **B.10.2.1.2.1. PUERTO RICO AND THE U.S. VIRGIN ISLANDS**

13184 Nonresidential wind retrofit projects in Puerto Rico and the U.S. Virgin Islands may use the pre-
 13185 calculated benefit if the total mitigation project cost is less than 25 percent of the replacement cost
 13186 value.

⁴²⁸ Windborne debris regions can be identified using the Applied Technology Council [“Hazards by Location”](#) website or other authoritative sources. More information can be found in FEMA P-804.

13187 **B.10.2.2. Feasibility and Effectiveness**

13188 Projects must be consistent with [Part 4](#). Mitigation projects assisted by HMA must be both feasible
 13189 and effective at mitigating the risks of the hazard(s) for which the project was designed. A project’s
 13190 feasibility is demonstrated through conformance with accepted engineering practices, established
 13191 codes, standards, modeling techniques or best practices.

13192 FEMA P-804 provides design guidance for wind-retrofit projects on existing one- and two-family
 13193 dwellings in coastal areas. Mitigation projects assisted under HMGP and BRIC are required to be
 13194 implemented in conformance with FEMA P-804. If a subapplication complies with FEMA P-804, no
 13195 additional technical information is required in the subapplication.

13196 **B.10.2.3. Environmental and Historic Preservation**

13197 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
 13198 should have a scoping narrative in accordance with [Part 6](#).

13199 The [Hurricane Wind Retrofit Technical Review](#) and [Seismic Retrofit Technical Review](#) job aids list the
 13200 documentation needed for FEMA to complete the EHP compliance review process for projects.

13201 **B.10.2.3.1. Americans with Disabilities Act**

13202 The ADA and Architectural Barriers Act of 1968 require that all facilities be accessible to and usable
 13203 by individuals with disabilities.⁴²⁹

13204 **B.10.3. RETROFIT: APPLICATION AND SUBMISSION INFORMATION**

13205 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
 13206 should have a scoping narrative in accordance with [Part 6](#). Project-specific criteria are highlighted
 13207 below.

13208 FEMA may request additional information after the subapplication has been submitted to ensure all
 13209 necessary information is received. However, all information required by the regulations and the HMA
 13210 Guide must be received before an assistance decision and award or final approval can be made.

13211 **B.10.3.1. Property Location**

13212 All subapplications should include latitude/longitude to the nearest sixth decimal place, site
 13213 photographs, site maps, and project plans and specifications.

13214 **B.10.3.2. Scope of Work**

13215 The scope of work must contain sufficient detail to evaluate effectiveness in reducing the identified
 13216 natural hazard(s). It must also be detailed enough to develop a reasonably accurate budget.

⁴²⁹ Public Law 90-480 (August 12, 1968), [42 U.S.C. § 4151](#)

13217 Technical documentation (including sketches and engineering calculations) should be provided with
 13218 the subapplication to demonstrate that the proposed work will successfully mitigate against future
 13219 natural hazard damage.

13220 The scope of work should include the following as well as applicable references and supporting
 13221 documentation:

- 13222 ▪ Description of any work required to be compliant with any federal, state and local laws,
 13223 regulations and ordinances, such as historic preservation issues or accessibility
 13224 requirements.

- 13225 ▪ References to all design provisions consulted including federal, state and local building
 13226 codes and standards.

- 13227 ▪ Proposed schematic or detailed engineering drawings, or engineering design, including
 13228 calculations demonstrating the effectiveness of the proposed solution in mitigating the
 13229 hazard(s).

- 13230 ▪ Applicable building code/edition or engineering standard used.

- 13231 ▪ Level of protection provided by the proposed project.

- 13232 ▪ Any residual risk to the structure from all hazards after project implementation.

- 13233 ▪ Proposed project details:

- 13234 ○ Description of the proposed activity to correct the identified nonstructural deficiencies
 13235 including a discussion of any alternative schemes considered.

- 13236 ○ Description of design criteria.

- 13237 ○ Description of any work required to be compliant with any federal, state and local laws,
 13238 regulations and ordinances, such as historic preservation issues or accessibility
 13239 requirements.

13240 **B.10.3.2.1. Problem Description and Proposed Solution for Structural Seismic Retrofit**

13241 At a minimum, the following items should be included:

- 13242 ▪ Geotechnical conditions.

- 13243 ▪ Site-specific seismic hazard data for the risk-targeted maximum considered earthquake
 13244 (MCER) spectral response accelerations for periods of 0.2 second (SS) and/or 1.0 second
 13245 (S1).

- 13246 ▪ Description of any damage sustained in past earthquakes.

13247 ▪ Descriptions of all identified seismic deficiencies including overstressed structural elements,
 13248 soft or weak stories, plan or vertical irregularities, excessive deflections, noncontinuous load
 13249 paths and areas of low ductility.

13250 ▪ Description of nonstructural elements that could interact with the structural elements during
 13251 an earthquake.

13252 The current engineering practice is to design for a maximum considered earthquake used for
 13253 collapse prevention. Except in near-fault areas, it is equivalent to the earthquake having a two
 13254 percent chance of occurrence in 50 years. For new construction, it is generally multiplied by a factor
 13255 of two-thirds to produce life safety-level design. Site-specific seismic hazard data is required for both
 13256 evaluation and design. This data consists of the MCER spectral response accelerations for periods of
 13257 SS and S1. Values for these parameters can be obtained from the USGS website⁴³⁰ as well as
 13258 ASCE/SEI 7. This data is also available in the 2003 IBC and may be available in the subapplicant’s
 13259 local building code.

13260 **B.10.3.2.2. Problem Description and Proposed Solution for Nonstructural Seismic Retrofit**

13261 At a minimum, the following items should be included:

13262 ▪ Site-specific seismic hazard data for the MCER spectral response accelerations for periods of
 13263 SS and/or S1.

13264 ▪ Description of any damage sustained in past earthquakes.

13265 ▪ Descriptions of all identified nonstructural seismic deficiencies.

13266 The current engineering practice is to design for an MCER used for collapse prevention. Except in
 13267 near-fault areas, it is equivalent to the earthquake having a uniform risk of one percent chance of
 13268 causing building collapse in 50 years. For new construction, it is generally multiplied by a factor of
 13269 two-thirds to produce life safety level design. Site-specific seismic hazard data is required for both
 13270 evaluation and design. This data consists of the MCER spectral response accelerations for periods of
 13271 SS and S1. Values for these parameters can be obtained from the USGS website as well as
 13272 ASCE/SEI 7 or [FEMA P-1050: National Earthquake Hazards Reduction Program Recommended](#)
 13273 *Seismic Provisions for New Buildings and Other Structures* (2015). This data is also available in the
 13274 2018 IBC and may be available in the subapplicant’s local building code.

13275 **B.10.3.2.3. Property Description Structural Seismic Retrofit**

13276 The following information regarding the building should be included in the property description of the
 13277 application:

⁴³⁰ <https://www.usgs.gov/natural-hazards/earthquake-hazards/maps>

- 13278 ▪ Age of structure entered as year built.
- 13279 ▪ Date of any upgrades or additions.
- 13280 ▪ Building type.⁴³¹
- 13281 ▪ Site classification.⁴³²
- 13282 ▪ Risk category.⁴³³
- 13283 ▪ Foundation type.
- 13284 ▪ Number of floors, including basement and dimensions including inter-story heights.
- 13285 ▪ Floor and roof diaphragm construction (to evaluate flexibility).
- 13286 ▪ Location of any seismic isolation joints.
- 13287 ▪ Description of architectural finishes (floors, walls and ceilings) and glazing.

13288 **B.10.3.2.4. Property Description Nonstructural Seismic Retrofit**

13289 The following information regarding the building should be included in the property description of the
13290 application:

- 13291 ▪ Age of structure entered as year built.
- 13292 ▪ Date of any upgrades or additions.
- 13293 ▪ Building type.⁴³⁴
- 13294 ▪ Site classification.⁴³⁵
- 13295 ▪ Risk category.⁴³⁶
- 13296 ▪ Foundation type.
- 13297 ▪ Number of floors, including basement and dimensions including inter-story heights.

⁴³¹ ASCE/SEI 41, Seismic Evaluation and Retrofit of Existing Buildings, Table 3-1

⁴³² ASCE/SEI 7, Minimum Design Loads for Buildings and Other Structures, Chapter 20

⁴³³ ASCE/SEI 7, Minimum Design Loads for Buildings and Other Structures, Table 1.5-1

⁴³⁴ ASCE/SEI 41, Seismic Evaluation and Retrofit of Existing Buildings, Table 3-1

⁴³⁵ ASCE/SEI 7, Chapter 20

⁴³⁶ ASCE/SEI 7, Table 1.5-1

13298 ▪ Floor and roof diaphragm construction (to evaluate flexibility).

13299 ▪ Location of any seismic isolation joints.

13300 ▪ Description of architectural finishes (floors, walls and ceilings) and glazing.

13301 **B.10.3.3. Activities Description and Schedule**

13302 As part of the scope of work, all subapplications should include an activities description mitigation
13303 activity. The scope of work should include all activities necessary for completing the project and
13304 should reference industry standards or project plans and specifications.

13305 The subapplication should contain a schedule for accomplishing the proposed work. The following
13306 project elements should be included in the work schedule:

13307 ▪ Architectural/engineering design including schematic, design development and contract
13308 document phases.

13309 ▪ Materials testing or other anticipated studies.

13310 ▪ Advertising, bid and award of contract(s).

13311 ▪ Permitting.

13312 ▪ Temporary relocation of occupants and contents, if needed.

13313 ▪ Contractor mobilization.

13314 ▪ Construction, including milestones such as inspections certifying occupancy.

13315 ▪ Reoccupation of facility.

13316 ▪ Closeout.

13317 **B.10.3.4. Budget**

13318 All subapplications should include a line-item breakdown of all anticipated costs. See [Part 6](#) for more
13319 information.

13320 The budget describes all anticipated and potential costs associated with the proposed project
13321 activity and represents the subapplicant’s best estimate of the proposed activity’s total value.
13322 Sufficient detail should be provided regarding various cost items. Backup documentation for all
13323 costs, including the basis for each, should be provided (e.g., bids from qualified professionals,
13324 nationally published or local cost estimating guides). Also, reference the base year for all cost data
13325 used. Costs should be provided for the following tasks:

13326 ▪ Architectural/engineering design.

- 13327 ■ Materials testing or other anticipated studies.
- 13328 ■ Permits.
- 13329 ■ Installation of retrofitting measures.
- 13330 ■ Any additional work required including the demolition/restoration of architectural finishes as
13331 well as work to the building’s utility systems.
- 13332 ■ Temporary relocation including rental and moving expenses (out and back).
- 13333 ■ Compliance with federal, state and local laws, regulations and ordinances, such as historic
13334 preservation issues or required accessibility upgrades.

13335 Subapplicants may apply for subrecipient management costs to cover administrative costs.
13336 Management costs must be included in the subapplication budget as a separate line item. More
13337 information about the requirements for management cost requests can be found in [Part 13](#).

13338 **B.10.4. RETROFIT: SUBAWARD IMPLEMENTATION**

13339 The following are basic steps in implementing an approved HMA retrofit project:

- 13340 1. Pre-construction (acquire land and/or easements, if applicable; carry out design process;
13341 seek technical consultant; prepare cost estimate; obtain construction permits, including
13342 required environmental permits; hire construction manager/contractor).
- 13343 2. Coordinate any needed closures or outages.
- 13344 3. Clear site/site preparation; install erosion control measures to prepare for construction
13345 activities.
- 13346 4. Construct in accordance with approved project plans and specifications.
- 13347 5. Conduct inspections and obtain certifications.
- 13348 6. Prepare the operations and maintenance plan.

13349 Post-award monitoring helps ensure subrecipients are achieving the objectives of the federal award
13350 consistent with the performance goals and milestones described in the subaward. To assist the
13351 recipient in monitoring retrofit projects, the following information should be included in Quarterly
13352 Progress Reports:

- 13353 ■ If the subrecipient is acquiring contract support, the subrecipient should report when the
13354 request for proposal is completed, when the contract is out for bid, when the bid period
13355 closes, when proposals are reviewed, when the contractor is selected and the date of the
13356 kickoff meeting.

- 13357 ▪ Describe the current status including a summary of:
 - 13358 ○ Recent progress and planned work.
 - 13359 ○ Risks identified or changes from the milestones/deliverables submitted with the scope of
 - 13360 work (e.g., financial concerns, coordination issues with state or local governments and
 - 13361 utilities, project management or contracting issues, legal disputes, and significant
 - 13362 changes impacting construction activities or timelines such as delays due to weather,
 - 13363 materials, procurement or labor issues).
- 13364 ▪ When construction has started, is substantially complete or completed.
- 13365 ▪ Any other milestones that have been identified in the subapplication, agreed to, or are
 - 13366 required by the recipient.

13367 **B.10.5. RETROFIT: BUDGET AND SCOPE CHANGE**

13368 All budget and scope changes must have prior FEMA approval consistent with [Part 8](#). Because the
 13369 final design may not be completed prior to award, once the project is awarded, the design must be
 13370 finalized by a licensed professional engineer. If the scope of work or cost estimate changes as a
 13371 result of completing the final design or to address permitting requirements, prior approval from
 13372 FEMA is required.

13373 **B.10.6. RETROFIT: CLOSEOUT**

13374 Recipients and subrecipients must closeout projects in a timely manner consistent with [Part 9](#).

13375 In addition to the typical HMA program closeout procedures, closeout of retrofit projects generally
 13376 includes:

- 13377 ▪ Verification that completed projects provide the level of protection approved in the scope of
 - 13378 work.
- 13379 ▪ Certification from a licensed professional engineer or architect that all retrofits meet the
 - 13380 required code standards for the project type. For wind retrofit projects, proof the project has
 - 13381 been designed and implemented in accordance FEMA P-804.
- 13382 ▪ Photos of the project site before and after construction. Photos should confirm the scope of
 - 13383 work is completed.
- 13384 ▪ Latitude/longitude of the project site to the nearest sixth decimal place.
- 13385 ▪ A vicinity map and map of the SFHA if applicable.

- 13386
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- For properties located within the SFHA, a copy of the elevation certificate (FEMA Form 086-0-33) and recorded deed for property maintenance and flood insurance requirements, along with proof of flood insurance.

13389 **B.10.7. RETROFIT: RESOURCES**



Retrofit Resources

- 13390
- FEMA Building Science webpage: <https://www.fema.gov/emergency-managers/risk-management/building-science>
 - FEMA BCA webpage: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>
 - EHP review job aids: <https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources>
 - ASCE/Structural Engineering Institute: <https://sp360.asce.org/PersonifyEbusiness/Merchandise/Product-Details/productId/233163464>
 - FEMA P-547, *Techniques for the Seismic Rehabilitation of Existing Buildings*: <https://www.fema.gov/node/techniques-seismic-rehabilitation-existing-buildings>
 - ASCE 7: <https://www.asce.org/asce-7/>
 - Hurricane Michael Recovery Advisory 1, *Successfully Retrofitting Buildings for Wind Resistance*: https://www.fema.gov/sites/default/files/2020-07/successfully-retrofit-buildings-wind_hurricane-michael-florida.pdf
 - FEMA Design Guide: *Three-Dimensional Roof Snowdrifts*: https://www.fema.gov/sites/default/files/2020-07/fema_roof_snowdrift_design_guide.pdf
 - FEMA P-957, *Snow Load Safety Guide*: https://www.fema.gov/sites/default/files/2020-07/fema_snow_load_2014.pdf
 - FEMA P-804, *Wind Retrofit Guide for Residential Buildings*: <https://www.fema.gov/emergency-managers/risk-management/building-science/high-wind>
 - FEMA P-424, *Design Guide for Improving School Safety in Earthquakes, Floods, and High Winds*: https://www.fema.gov/sites/default/files/documents/fema_p-424-design-guide-improving-school-safety.pdf
 - FEMA P-543, *Design Guide for Improving Critical Facility Safety from Flooding and High Winds*: https://www.fema.gov/sites/default/files/2020-08/fema543_design_guide_complete.pdf

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- FEMA P-577, *Design Guide for Improving Hospital Safety in Earthquakes, Floods, and High Winds*:
https://www.fema.gov/emergency-managers/risk-management/building-science/publications?name=&field_keywords_target_id=50665&field_document_type_target_id=All&field_audience_target_id=All
- FEMA P-2062, *Guidelines for Wind Vulnerability Assessments of Existing Critical Facilities*:
Error! Hyperlink reference not valid.<https://www.fema.gov/sites/default/files/2020-07/guidelines-wind-vulnerability.pdf>

13428 **B.11. Generators**

13429 **B.11.1. GENERATORS: OVERVIEW**

13430 The purchase and installation of generators and related equipment, such as hookups and transfer
13431 switches, are generally eligible if they are cost-effective, contribute to a long-term solution to the
13432 problem they are intended to address, and meet all other program eligibility criteria.

13433 Generators are emergency equipment that provide a secondary source of power. The type of
13434 generator—that is, whether the generator is portable or permanent (fixed)—is irrelevant to the
13435 eligibility as long as the project that the generator is used for or the generator (and related
13436 equipment) meet the requirements of the program and the HMA Guide.

13437 A permanent generator—also referred to as a fixed or standby generator—is a permanently installed
13438 generator that provides power by being hard-wired into the facility’s main distribution panel and can
13439 be started manually or automatically in the event of a power outage. During a power failure, an
13440 automatic transfer switch isolates the electrical wiring from the utility grid and signals the generator
13441 to start functioning. The generator begins to feed power to the lines. When power is restored, a
13442 reverse action takes place, in which incoming feed is once again procured from utility lines, and the
13443 generator ceases to function and goes into a standby mode.

13444 Portable generators work with stand-alone applications and are meant to temporarily energize a few
13445 critical applications via external cords. These are usually functional for a short period of time.
13446 Different models of portable units can be fueled using one or more specific energy sources, such as
13447 gasoline, diesel, biodiesel, solar, propane or natural gas.

13448 Hookups provide a pre-installed connection for generators to be connected to the facility’s electrical
13449 system quickly when needed. Transfer switches are devices that safely connect standby or
13450 emergency generators to the electrical system. There are two types of transfer switches:

13451 ▪ **Manual transfer switches** are used to transfer power between the utility and portable or
13452 optional standby generators. Manual transfer switches must be operated manually when
13453 utility power is lost and when it is restored. The switches can be wired to a separate subpanel
13454 to run essential circuits in the building, such as lights, or they can be wired to run the entire
13455 building if the attached generator is sufficiently sized. Manual transfer switches are most
13456 commonly used when a portable generator system is involved but may be used with fixed
13457 generators.

13458 ▪ **Automatic transfer switches** automatically start the generator and provide power from the
13459 generator to the facility when they detect utility power loss. They also retransfer the facility
13460 back to the utility when the utility power is restored and shut down the generator. Automatic
13461 transfer switches can be beneficial because of their simplicity and automatic action but are
13462 generally more expensive. Automatic transfer switches are typically only used with fixed
13463 generators. Applicants should discuss their needs with a licensed electrician or a licensed

13464 electrical engineer to determine which type of transfer switch would be better suited for each
 13465 project.

13466 Fuel is needed for a generator to function. Natural gas is piped from a utility, while propane
 13467 and diesel use fuel tanks. The diesel fuel tanks need some form of spill prevention, usually in the
 13468 form of a double walled tank. Propane and diesel tanks are mounted on concrete pads. Diesel tanks
 13469 can be mounted below the generator as a subbase fuel tank.

13470 **B.11.2. GENERATORS: ELIGIBILITY**

13471 **B.11.2.1. Eligible Activities**

13472 Generators are emergency equipment that provide a secondary source of power to a facility.
 13473 Generators and related equipment (e.g., hookups) are eligible under HMGP, HMGP Post Fire and
 13474 BRIC if they contribute to a long-term solution to the problem they are intended to address.
 13475 Generator projects must be cost-effective. If there is insufficient data to evaluate the generator
 13476 project using standard BCA methods, the project may be eligible under the 5 Percent Initiative.

13477 Generators and/or related equipment are eligible under the following scenarios:

- 13478 ▪ As a stand-alone project if the generator protects a critical facility.
- 13479 ▪ As a functional portion of an otherwise eligible mitigation solution (whether the facility is
 13480 critical or not).
- 13481 ▪ If required by code and the project meets all other programmatic requirements (whether the
 13482 facility is critical or not).

13483 Related equipment is eligible if it is necessary to efficiently and effectively distribute power from a
 13484 generator (e.g., generator hookups and pads).

13485 For generators that are components of larger projects, the costs and benefits from the generator,
 13486 along with any related equipment, may be aggregated with the costs and benefits from the other part
 13487 of the project.

13488 For purposes of eligibility, the size of the generator may be relevant. In general, to be eligible the
 13489 generator size must be appropriate for the facility; the appropriate size may vary by facility and
 13490 generator usage. It is not always necessary for the generator to support a facility’s operation to its
 13491 full capacity, but it should be sized appropriately to ensure the facility can provide uninterrupted
 13492 critical functions in the event of future power outages. Determining what facility functions the
 13493 generator needs to support is crucial in selecting the correct generator for the facility. The rated
 13494 output of the selected generator must be matched to the maximum anticipated capacity needed.

13495 Generators that are covered must be elevated in accordance with the flood class of the building or
 13496 structure they serve. [Table 38](#) summarizes the elevation requirements by flood class. For additional
 13497 information about flood design classes, see Tables 1-1 and 7-1 in ASCE 24.

13498 **Table 38: Flood Class Elevation Requirements**

Flood Design Class	Flood Design Class Description	Required Elevation
1	Buildings and structures that are normally unoccupied and pose minimal risk to the public or minimal disruption to the community should they be damaged or fail because of flooding.	Design flood elevation
2	Buildings and structures that pose a moderate risk to the public or moderate disruption to the community should they be damaged or fail because of flooding, except those in another flood design class.	Base flood elevation + 1.0 foot or design flood elevation, whichever is higher
3	Buildings and structures that pose a high risk to the public or significant disruption to the community should they be damaged, be unable to perform their intended functions after flooding, or fail because of flooding.	Base flood elevation + 1.0 foot or design flood elevation, whichever is higher; for Coastal High Hazard or Coastal A Zones, Base Flood Elevation + 2.0 feet or design flood elevation, whichever is higher
4	Buildings and structures that contain essential facilities and services necessary for emergency response and recovery or that pose a substantial risk to the community at large in the event of failure, disruption of function or damage by flooding.	Base flood elevation + 2.0 feet, design flood elevation, or 0.2-percent-annual-chance flood elevation, whichever is higher

13499 **B.11.2.2. Ineligible Activity**

13500 The project must be consistent with the criteria described in [Part 4](#). The projects listed below are
 13501 generally ineligible for HMA unless they meet the eligibility requirements otherwise described in law,
 13502 regulations or the HMA Guide.

13503 **B.11.2.2.1. Projects in Single Residential Structures**

13504 The purchase of a generator must be for a critical facility or constitute a functional portion of an
 13505 otherwise eligible mitigation solution. The purchase of a generator for the singular purposes of
 13506 maintaining power for a single residential structure is therefore not an eligible activity for purposes of
 13507 HMGP and BRIC assistance.

13508 **B.11.2.2.2. Projects that are Substitutes for Emergency, Temporary or Partial Solutions**

13509 HMA is not available as a substitute for emergency, temporary or partial solutions under section 403
13510 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), Essential
13511 Assistance ([42 U.S.C. § 5170\(b\)](#)) and/or the Title VI Emergency Preparedness.

13512 **B.11.2.2.3. Special Flood Hazard Area and National Flood Insurance Program Requirements**

13513 Flood insurance coverage does not apply to generators that may service a building but are located
13514 apart from the structure and are not attached. If a generator or other such equipment is attached in
13515 accordance with the policy definition or is in a fully enclosed structure, coverage would apply. If
13516 generators and other such equipment are not listed in the coverage or are in a basement, they are
13517 not covered.

13518 **B.11.2.3. Duplication of Programs and Benefits**

13519 FEMA cannot provide assistance for activities that it determines the more specific authority lies with
13520 another federal agency or program.

13521 For additional information on duplication of programs and duplication of benefits see [Part 4](#).

13522 **B.11.2.4. Cost-Effectiveness**

13523 Applicants and subapplicants must demonstrate that mitigation projects are cost-effective. Projects
13524 must be consistent with [Part 5](#).

13525 Information needed for performing the BCA for generator projects may vary by facility. The following
13526 are typically key inputs in the BCA for purposes of generator projects:

- 13527 ▪ **Project useful life:** According to [OMB Circular A-76 - Revised Appendix 3](#): Performance of
13528 Commercial Activities, the useful life for generators or generator sets is 19 years. This value
13529 can be used as the default useful life value when performing the BCA. It may be altered
13530 based on manufacturer warranty or other documentation that can demonstrate that the
13531 generator may be able to provide service for longer than 19 years. Analysts should use the
13532 19-year project useful life first.
- 13533 ▪ **Project costs:** The cost of generators varies by size, installation and purpose. The generator's
13534 size and specifications should be reasonable, appropriate and necessary to continuing the
13535 critical functions of the facility. The subapplicant should provide the exact costs for
13536 generators, installation and components and include the costs in the BCA.
- 13537 ▪ **Facility and value of service:** For potable water, wastewater, police and fire stations, and
13538 hospital facilities, analyses can be performed via the Historic/Professional Expected
13539 Damages methodology in the BCA Toolkit, which provide service values for these facilities. To
13540 use these values, the BCA Toolkit requires information regarding the population served by
13541 the facility. For example, if a generator is to be installed at a wastewater treatment plant, the

13542 BCA Toolkit user must input how many customers are served by the facility and how many
 13543 days the facility was inoperable because of power failure. These values can typically be
 13544 obtained from the facility manager and can be provided on official letterhead for
 13545 documentation purposes.

13546 ▪ **Recurrence intervals:** Recurrence information used in the analysis may vary by location or by
 13547 the hazard that is anticipated to be or is the cause of power failure, such as wind or flood.

13548 ▪ **Other benefits:** Other benefits (or costs avoided) may be included if they are addressed by
 13549 the generator project if they are a direct result of interrupted power service that a generator
 13550 would have mitigated.

13551 Information on pre-calculated benefits for generators for certain types of hospital projects can be
 13552 found in Subsection B.11.2.4.3 Pre-Calculated Benefits for Hospital Generators or on FEMA’s
 13553 [“Benefit-Cost Analysis”](#) webpage.

13554 **B.11.2.4.1. Recurrence Intervals**

13555 The following tools may be useful in determining a recurrence interval for generator projects:

13556 ▪ If the facility lost power as a result of wind damage to power lines feeding the facility, the
 13557 analyst can use the [Applied Technology Council Wind Speed Tool](#) to determine the frequency
 13558 of the coastal wind event.

13559 ▪ If power outages are attributed to flooding, recurrence information for the flooding event
 13560 should be used in the analysis. The National Weather Service’s [Precipitation Frequency Data](#)
 13561 [Server](#) can be used to establish a frequency for various precipitation events.

13562 ▪ USGS stream gauge data can also be used to extrapolate frequency information for flood
 13563 events; details of this can be found in the FEMA guidance document: [Supplement to the](#)
 13564 [Benefit-Cost Analysis Reference Guide](#) (June 2011).

13565 ▪ The [National Snow and Ice Data Center](#).

13566 ▪ Insurance claims, FEMA PIVOT information, damage repair records, data from a state/local
 13567 agency or local government newspaper accounts citing credible sources (other than
 13568 anecdotal accounts) could be used in conjunction with the Unknown Frequency Calculator
 13569 within the BCA Toolkit. Using this method may require more time as three events are required
 13570 to complete the analysis.

13571 **B.11.2.4.2. Additional Benefits**

13572 All costs associated with power failure that would be mitigated by a generator should be considered.
 13573 For example, a wastewater treatment plant sometimes requires additional costs to bring the facility
 13574 back to operating status after an extended power failure. This may include the removal of sludge in
 13575 equipment or additional labor hours needed to bring the facility back to operational status. Those

13576 additional costs can be included above and beyond the value of service costs if a generator would
13577 have prevented those additional costs.

13578 To the extent they can be captured and justified, environmental cleanup costs associated with raw
13579 sewage discharge can be included in the BCA for wastewater treatment plants. FEMA does not have
13580 a default value for these associated costs, and these costs will vary by location. The subapplicant
13581 should include all reasonable costs that will be mitigated by having a backup generator installed at a
13582 facility.

13583 Additionally, finding the value (in loss of service terms) of a state emergency operations center to
13584 prove the cost-effectiveness of a generator project is difficult. FEMA will allow reasonable and
13585 justified loss of service costs for state and local emergency operations centers identified by the
13586 subapplicant to be entered into the BCA Toolkit to evaluate the cost-effectiveness of an emergency
13587 operations center generator project. An additional option is to investigate the costs of remobilizing an
13588 emergency operations center to an alternate/continuity of operations location that could be avoided
13589 should the emergency operations center be supplied with an uninterruptible power source such as a
13590 generator.

13591 **B.11.2.4.3. Pre-Calculated Benefits for Hospital Generators**

13592 FEMA established the use of a pre-calculated benefit to demonstrate cost-effectiveness for certain
13593 hospital generator projects.

13594 The pre-calculated benefit is available for hospital generator projects if all of the following
13595 requirements are satisfied:

- 13596 ▪ The hospital must have an emergency department.
- 13597 ▪ The project represents a stand-alone solution.⁴³⁷ The subapplication must provide enough
13598 information to demonstrate technical feasibility and effectiveness of the mitigation solution.
13599 This includes information from a licensed design professional for cost, generator capacity
13600 related to critical services throughout the hospital, and scope for a transfer switch, fuel
13601 storage and other required components.
- 13602 ▪ If the generator is part of a larger project, the pre-calculated benefits from the generator
13603 portion cannot be combined or aggregated with the benefits from another portion of the
13604 project.
- 13605 ▪ The total cost of the project must be less than or equal to the pre-calculated benefits.⁴³⁸

⁴³⁷ See, for example, [44 CFR 206.434\(c\)\(4\)](#). In other words, at the completion of the generator project, the project solves the problem independently and has all elements necessary to be fully capable of supplying power to the critical services throughout the hospital.

⁴³⁸ Total project costs include all project costs, not just the federal share.

13606 ○ The pre-calculated benefits for a hospital generator project are \$6.95 per hospital
13607 building gross square footage in urban areas and \$12.62 per hospital building gross
13608 square footage in rural areas.⁴³⁹ For purposes of this pre-calculated benefit, “urban” is
13609 defined as any location within an urbanized area as defined by the U.S. Census
13610 Bureau.⁴⁴⁰ “Rural” is defined as any location outside of an urbanized area (including
13611 urban clusters).

13612 ○ Furthermore, all locations in Alaska, Hawaii, Puerto Rico, the U.S. Virgin Islands and other
13613 island territories are considered rural for the purposes of this pre-calculated benefit. The
13614 applicant or subapplicant must use the address or latitude/longitude of the hospital to
13615 determine urban/rural status; this designation cannot be applied countywide or across
13616 Metropolitan Statistical Areas.

13617 Documentation that the project meets the criteria above must be included in the project
13618 subapplication to use this pre-calculated benefit to demonstrate cost-effectiveness. Cost estimates
13619 must be based on industry standards, vendor estimates or other reliable sources.

13620 **B.11.2.5. Environmental and Historic Preservation**

13621 All subapplications submitted to FEMA must meet the EHP eligibility criteria in [Part 4](#). All
13622 subapplications should have a scoping narrative in accordance with [Part 6](#).

13623 **B.11.3. GENERATORS: APPLICATION AND SUBMISSION INFORMATION**

13624 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
13625 should have a scoping narrative in accordance with [Part 6](#). Project-specific criteria are highlighted
13626 below.

13627 FEMA may request additional information after the subapplication has been submitted to ensure all
13628 necessary information is received. However, all information required by the regulations and the HMA
13629 Guide must be received before an assistance decision and award or final approval can be made.

13630 The subapplication must include the following:

- 13631 ▪ **Scope of work:** Provide a project scoping narrative identifying the proposed mitigation action
13632 and structures requesting backup power, including a description of the proposed activities,
13633 information on the critical facility, mitigation alternatives and an explanation of how the
13634 project will mitigate risk. The scope of work should include key milestones and correspond
13635 with the design information, project schedule and budget.

⁴³⁹ A hospital in a rural area would have higher benefits than in an urban area because of the greater average distance to the next nearest hospital.

⁴⁴⁰ The U.S. Census Bureau is the only acceptable source for determining whether a location is within an urbanized area.

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▪ **Technical data to support the scope of work:** Technical data is necessary to demonstrate that a project is feasible and effective at reducing risk. This data may consist of information such as engineering or design plans showing the existing electrical system including the utility transformer(s) and the proposed generator size, generator interconnections and fuel source. This information can be further developed following the award and should be accounted for in the scoping narrative, schedule and budget if not available during application development.
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▪ **Critical facility information:** The information is necessary to demonstrate that the project is feasible and effective at reducing risk. Information on the facility may include the date the structure was built, building type and the functions provided, construction type, and additional details relating to the existing condition of the structure.
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▪ **Project schedule:** The application should include a detailed project schedule for all tasks identified in the project budget and the scope of work. The schedule identifies major milestones with start and end dates for each activity. Project schedules must show completion of all activities (including construction period) within the period of performance allowed by the relevant HMA program. Sufficient detail must be provided so FEMA can determine whether the proposed activities can be accomplished within the period of performance.
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▪ **Project budget:** The project budget should contain a detailed line-item budget for all tasks identified in the project schedule and the scope of work. All costs included in the application should be reviewed to verify they are necessary, reasonable and allocable consistent with the provisions of [2 CFR part 200](#). Include sufficient detail so that FEMA can determine whether costs are reasonable based on proposed activities and level of effort. Costs incurred prior to award may be considered pre-award costs (and eligible for reimbursement) if they are incurred after the date of the major disaster declaration (HMGP and HMGP Post Fire) or after the release of the Notice of Funding Opportunity for BRIC.
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▪ **Project location map:** The application should include a map showing the project location. If the project includes multiple sites, the map should show the project boundaries, including the staging area.
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▪ **Property location information:** An application should contain the physical address and latitude and longitude coordinates to the nearest sixth decimal place of each critical facility in the project application. If the project has multiple properties, the information for all properties should be provided. In general, a post office box number is not an acceptable address. If the address provided does not clearly match up with the structure(s) to be mitigated, provide photos or a site map with the structure(s) footprint(s) clearly identified.
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▪ **Flood Insurance Rate Map:** The applicant should determine whether the project is located in a floodplain and provide a FIRM showing the project location. The applicant should include a

13673 description of the flood zone in which the existing structure is located and whether the site is
 13674 in a regulatory floodway.

13675 ▪ **Description of the hazard to be mitigated:** The application should include information on the
 13676 risk to be mitigated. Mitigation projects assisted under HMGP, HMGP Post Fire and BRIC
 13677 must demonstrate the proposed mitigation activity will address a problem that has been
 13678 repetitive or that poses a significant risk to public health and safety if left unresolved.
 13679 Generator projects must document the risk to the critical facility from natural hazards.
 13680 Because multiple natural hazards can disrupt power supply, specify which hazard(s) is
 13681 causing the loss of power that the generator will mitigate and provide documentation of the
 13682 hazard’s risk. The risk to be mitigated can be based on either documented historical
 13683 damages (such as loss of function during a previous disaster event) or professionally
 13684 expected damages (estimated damages that have not yet occurred or that occurred but not
 13685 to the extent possible).

13686 Subapplicants may apply for subrecipient management costs to cover administrative costs.
 13687 Management costs must be included in the subapplication budget as a separate line item. More
 13688 information about the requirements for management costs request can be found in [Part 13](#).

13689 **B.11.4. GENERATORS: SUBAWARD IMPLEMENTATION**

13690 The following are basic steps in implementing an approved HMA generator project:

- 13691 1. Pre-construction (carry out design process, seek technical consultant, prepare cost estimate,
 13692 obtain building permits, hire project manager, hire construction manager/contractor).
- 13693 2. Prepare site.
- 13694 3. Install pad/foundation for generator and fuel system.
- 13695 4. Install generator and hookups/switches.
- 13696 5. Connect to utilities as appropriate and to fuel system.
- 13697 6. Conduct inspections.
- 13698 7. Complete load testing.
- 13699 8. Prepare operations and maintenance plans/agreements, which should include regular startup
 13700 testing and load testing. Generators serving buildings should be tested in accordance with the
 13701 latest published edition of [NFPA 110: Standard for Emergency and Standby Power Systems](#).

13702 Post-award monitoring helps ensure subrecipients are achieving the objectives of the federal award
 13703 consistent with the performance goals and milestones described in the subaward. To assist the
 13704 recipient in monitoring generator projects, the following milestone information or events should be
 13705 included in Quarterly Progress Reports:

13706 ▪ If the subrecipient is acquiring contract support, the subrecipient should report when the
 13707 request for proposal is completed, when the contract is out for bid, when the bid period
 13708 closes, when proposals are reviewed, when the contractor is selected and the date of the
 13709 kickoff meeting

13710 ▪ Describe the current status including a summary of:

13711 ○ Recent progress and planned work.

13712 ○ Risks identified or changes from the milestones/deliverables submitted with the scope of
 13713 work (e.g., financial concerns, coordination issues with state or local governments and
 13714 utilities, project management or contracting issues, legal disputes, and significant
 13715 changes impacting construction activities or timelines such as delays due to weather,
 13716 materials, procurement or labor issues).

13717 ▪ When construction has started, is substantially complete or completed.

13718 ▪ Any other milestones that have been identified in the subapplication or agreed to or are
 13719 required by the recipient.

13720 **B.11.5. GENERATORS: BUDGET AND SCOPE CHANGE**

13721 All budget and scope changes must have prior FEMA approval consistent with [Part 8](#). Because the
 13722 final design may not be completed prior to award, once the project is awarded, the design must be
 13723 finalized by a licensed professional engineer. If the scope of work or cost estimate change as the
 13724 result of completing the final design or addressing permitting requirements, prior approval from
 13725 FEMA is required.

13726 **B.11.6. GENERATORS: CLOSEOUT**

13727 Recipients and subrecipients must closeout projects in a timely manner consistent with [Part 9](#).

13728 In addition to the typical HMA program closeout procedures, closeout of generator projects generally
 13729 includes:

13730 ▪ Inspection report that verifies all work noted in the scope of work was completed and is
 13731 consistent with the size, specifications and instillation method identified in the scope of
 13732 work. The report should indicate the date the inspection was completed and who completed
 13733 the inspection.

13734 ▪ Latitude/longitude to the nearest sixth decimal place of the project site and generator
 13735 location.

13736 ▪ Clearly labeled photographs, which must include a picture of the transfer switch.
 13737 Photographs should also include a general overview of the installation and close-up views of
 13738 the generator sections.

- 13739 ▪ For portable generators, Standard Form 428, *Tangible Personal Property Report*, must be
 13740 submitted if applicable to comply with disposition of equipment requirements. For more
 13741 information, see [Part 9](#).

13742 **B.11.7. GENERATORS: RESOURCES**



Generators Resources

- 13744 ▪ EHP Review job aids: [https://www.fema.gov/grants/guidance-tools/environmental-](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
 13745 [historic/preparation-resources](https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources)
- 13746 ▪ FEMA BCA webpage: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>
- 13747 ▪ OMB Circular A-76, Performance of Commercial Activities:
 13748 [https://www.whitehouse.gov/wp-](https://www.whitehouse.gov/wp-content/uploads/legacy_drupal_files/omb/circulars/A76/a076.pdf)
 13749 [content/uploads/legacy_drupal_files/omb/circulars/A76/a076.pdf](https://www.whitehouse.gov/wp-content/uploads/legacy_drupal_files/omb/circulars/A76/a076.pdf)
- 13750 ▪ Applied Technology Council Wind Speed Tool: <https://hazards.atcouncil.org/>
- 13751 ▪ Precipitation Frequency Data Server: <https://hdsc.nws.noaa.gov/hdsc/pfds/>
- 13752 ▪ National Snow and Ice Data Center: <https://nsidc.org/>

13753 **B.12. Warning Systems**

13754 **B.12.1. WARNING SYSTEMS: OVERVIEW**

13755 Warning citizens of impending hazards and automating certain risk reduction functions can reduce
13756 damage from natural disasters.

13757 **B.12.2. WARNING SYSTEMS: ELIGIBILITY**

13758 In general, warning systems may be eligible for HMA if they meet the general program eligibility
13759 requirements, including feasibility and cost-effectiveness. For HMGP, HMGP Post Fire and BRIC
13760 earthquake early warning system project eligibility, see B.12.3.1. Eligible Activities below.

13761 For purposes of HMGP and HMGP Post Fire, equipment and systems to warn citizens of impending
13762 hazards are generally eligible under the 5 Percent Initiative. For more information on the 5 Percent
13763 Initiative, see [Part 10](#). Since October 5, 2020, earthquake early warning systems are also authorized
13764 under section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act ([Stafford](#)
13765 [Act](#))⁴⁴¹ for general HMGP assistance if the conditions outlined in section B.12.3 are met.

13766 For purposes of BRIC and FMA, warning projects are generally eligible if they meet program
13767 requirements. When seeking assistance for these projects, it is important that applicants describe
13768 how the system will be used to reduce potential injury and damage from a natural disaster (i.e., what
13769 actions will be associated with the warning).

13770 For purposes of the HMGP and HMGP Post Fire 5 Percent Initiatives, eligible warning projects include
13771 but are not limited to warning systems for the following:

- 13772 ▪ **Tsunami warning systems:** Most tsunamis are generated by earthquakes and may result in
13773 flooding, landslides and erosion.
- 13774 ▪ **Tornado sirens:** Some communities with frequent tornado watches and warnings have
13775 tornado sirens to give audible warning to residents in an area with a tornado warning. Other
13776 systems can alert the public through cell phones, such as the Integrated Public Alert and
13777 Warning System. It is a national system for local alerting that provides authenticated
13778 emergency alert and life-saving information messaging to the public through mobile phones
13779 using Wireless Emergency Alerts, and to radio and television via the Emergency Alert System.
- 13780 ▪ **Enhanced or reversed 911 systems:** Enhanced 911 systems automatically provide the
13781 caller’s location to the 911 dispatchers. These systems may provide an address or latitude
13782 and longitude so that cell phone users’ locations can be determined. Reverse 911 systems

⁴⁴¹ Public Law 100-707 (November 23, 1988); amending the Disaster Relief Act of 1974, Public Law 93-288 (May 22, 1974); [42 U.S.C. § 5170c](#)

13783 allow safety organizations to alert individuals and businesses to the risk of danger by sending
 13784 a recorded voice message to landline telephones and a recorded voice message or text
 13785 message to registered cell phones within a defined geographic area.

13786 **Weather stations/rain gauges:** Weather stations typically monitor a combination of indoor
 13787 and outdoor temperature, humidity and barometric pressure. Complete weather stations also
 13788 monitor wind and rain using wind sensors and rain gauges, and some also measure
 13789 ultraviolet index, soil moisture and water temperature. Rain gauges collect and measure the
 13790 amount of rain that falls during a given period of time per unit area. They can be part of a
 13791 total weather station or an independent piece of equipment. Meteorologists and hydrologists
 13792 use the information from these stations to predict future weather and refine forecast models.

13793 **Wildfire warning signs:** Installing warning equipment and systems, including electronic signs
 13794 and signals, for warning citizens about wildfire hazards and hazard identification-related
 13795 equipment is an eligible activity under the 5 Percent Initiative. The general intent of these
 13796 signs is to provide warning of fire risk and/or evacuation orders for people in the area.

13797 **National weather radios:** NOAA delivers alerts through NOAA weather radios.

13798 **B.12.2.1. Duplication of Programs**

13799 As is the case for other programs, FEMA cannot provide assistance for early warning projects and
 13800 activities for which the more specific authority lies with another federal agency or program.

13801 For additional information on duplication of programs and duplication of benefits see [Part 4](#).

13802 **B.12.2.2. Environmental and Historic Preservation**

13803 All subapplications submitted to FEMA must meet the EHP criteria in [Part 4](#). All subapplications must
 13804 provide the information described in [Part 6](#) so that FEMA may perform the EHP review.

13805 **B.12.3. WARNING SYSTEMS: EARTHQUAKE EARLY WARNING SYSTEMS**

13806 **B.12.3.1. Eligible Activities**

13807 HMGP and BRIC recipients may leverage assistance to support building capability for earthquake
 13808 early warning systems. Earthquake early warning systems use seismic instrumentation to monitor
 13809 seismic activity in real time to detect significant earthquakes near the source and transmit those
 13810 signals to a seismic monitoring network. The monitoring network can quickly send out a warning to
 13811 alert people within the region before shaking arrives.

13812 The following three categories of activities that support building capability for earthquake early
 13813 warning may be assisted under HMGP, HMGP Post Fire and BRIC:

13814 **Regional seismic networks.**

- 13815 ▪ Geodetic networks.
- 13816 ▪ Seismometers, global positioning system receivers and associated infrastructure such as
- 13817 telemetry or computer processing needed to build capability for an earthquake early warning
- 13818 system designed as part of the Advanced National Seismic System or other existing state- or
- 13819 federally-supported earthquake monitoring networks. They must be part of a system that
- 13820 enables end user notification. FEMA, in consultation with USGS, determined the Advanced
- 13821 National Seismic System ShakeAlert system is the only system that currently enables end
- 13822 user notification.

13823 Seismic and geodetic sensors and infrastructure assisted under HMGP, HMGP Post Fire or BRIC
 13824 must be integrated into an existing operational earthquake monitoring network, and data from these
 13825 sensors must be freely available to the public.

13826 **B.12.3.2. Ineligible Activities**

13827 HMGP, HMGP Post Fire and BRIC assistance are not available for earthquake early warning systems’
 13828 operations and maintenance costs.

13829 **B.12.3.3. Cost-Effectiveness**

13830 Earthquake early warning systems are exempt from the requirement to demonstrate cost-
 13831 effectiveness.

13832 **B.12.3.4. Subapplications Requirements**

13833 Subapplications will need to clearly demonstrate how the proposed activities will integrate into
 13834 seismic monitoring networks to build earthquake early warning capability and help to reduce risk
 13835 from earthquakes. A benefit-cost analysis is not required. Applicants are encouraged to consult with
 13836 their FEMA region to determine the appropriate level of data needed to submit a subapplication for
 13837 earthquake early warning.

13838 **B.12.4. WARNING SYSTEMS: APPLICATION AND SUBMISSION INFORMATION**

13839 All subapplications submitted to FEMA for warning systems must meet the eligibility criteria in [Part 4](#).

13840 All subapplications should have a scoping narrative in accordance with [Part 6](#). Project-specific
 13841 criteria are highlighted below.

13842 FEMA may request additional information after the subapplication has been submitted to ensure all
 13843 necessary information is received. However, all information required by the regulations and the HMA
 13844 Guide must be received before an assistance decision and award or final approval can be made.

13845 Subapplicants may apply for subrecipient management costs to cover administrative costs.
 13846 Management costs must be included in the subapplication budget as a separate line item. More
 13847 information about the requirements for management cost requests can be found in [Part 13](#).

13848 B.12.5. WARNING SYSTEMS: SUBAWARD IMPLEMENTATION

13849 Post-award monitoring helps ensure subrecipients are achieving the objectives of the federal award
 13850 consistent with the performance goals and milestones described in the subaward. To assist the
 13851 recipient in monitoring warning system projects, the following milestone information or events should
 13852 be included in Quarterly Progress Reports:

- 13853 ▪ If the subrecipient is acquiring contract support, the subrecipient should report when the
 13854 request for proposal is completed, when the contract is out for bid, when the bid period
 13855 closes, when proposals are reviewed, when the contractor is selected and the date of the
 13856 kickoff meeting.
- 13857 ▪ Describe the current status including a summary of:
 - 13858 ○ Recent progress and planned work.
 - 13859 ○ Risks identified or changes from the milestones/deliverables submitted with the scope of
 13860 work (e.g., financial concerns, coordination issues with state or local governments and
 13861 utilities, project management or contracting issues, legal disputes, and significant
 13862 changes impacting construction activities or timelines such as delays due to weather,
 13863 materials, procurement or labor issues).
 - 13864 ▪ When construction has started, is substantially complete or completed.
 - 13865 ▪ Any other milestones that have been identified in the subapplication or agreed to or are
 13866 required by the recipient.

13867 B.12.5.1. Budget and Scope Change

13868 All budget and scope changes must have prior FEMA approval consistent with [Part 8](#). Because the
 13869 final design may not be completed prior to award, once the project is awarded, the design must be
 13870 finalized by a licensed professional engineer. If the scope of work or cost estimate change as the
 13871 result of completing the final design or addressing permitting requirements, prior approval from
 13872 FEMA is required.

13873 B.12.6. WARNING SYSTEMS: CLOSEOUT

13874 Recipients and subrecipients must closeout projects in a timely manner consistent with [Part 9](#).

13875 B.12.7. WARNING SYSTEMS: RESOURCES

13876 Warning Systems Resources

- 13877 ▪ FEMA BCA webpage: <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>

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- EHP review job aids: <https://www.fema.gov/grants/guidance-tools/environmental-historic/preparation-resources>
- Revised technical implementation plan for the ShakeAlert system (an earthquake early warning system for the West Coast of the U.S.):
<https://pubs.er.usgs.gov/publication/ofr20181155>
- Advanced National Seismic System Policy and Procedures Documents:
<https://www.usgs.gov/natural-hazards/earthquake-hazards/anss-advanced-national-seismic-system>

13886 **C. Other Innovative Solutions**

13887 FEMA may provide assistance for other innovative solutions under HMGP, HMGP Post Fire, BRIC and
13888 FMA. These proposed activities will be evaluated on their own merit against program requirements
13889 that generally include:

- 13890 ▪ Eligibility and completeness.
- 13891 ▪ Cost-effectiveness.
- 13892 ▪ Technical feasibility and effectiveness.
- 13893 ▪ EHP program compliance.

13894 Eligible projects will be approved on a case-by-case basis, provided assistance is available.

13895 **C.1. Other Innovative Solutions: Application and Submission Information**

13896 All subapplications submitted to FEMA must meet the eligibility criteria in [Part 4](#). All subapplications
13897 should have a scoping narrative in accordance with [Part 6](#).

13898 FEMA may request additional information after the subapplication has been submitted to ensure all
13899 necessary information is received. However, all information required by the regulations and the HMA
13900 Guide must be received before an assistance decision and award or final approval can be made.

13901

Part 13. Management Costs

13902 The Federal Emergency Management Agency (FEMA) provides assistance for management costs
13903 incurred in the administration of Hazard Mitigation Assistance (HMA) awards and subawards.

13904 A. Eligibility

13905 Management costs are available under HMGP, HMGP Post Fire, BRIC and FMA.

13906 For the Hazard Mitigation Grant Program (HMGP) and Hazard Mitigation Grant Program Post Fire
13907 (HMGP Post Fire), recipients will be reimbursed no more than 15 percent of the total amount of the
13908 award, of which not more than 10 percent may be used by the recipient and 5 percent by the
13909 subrecipient. Under HMGP and HMGP Post Fire, recipients' administrative plans must include
13910 procedures for monitoring and reporting on subrecipient management costs before receiving funding
13911 for management costs. For more information, see [Part 10](#).

13912 For Building Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance (FMA),
13913 recipients may apply for a maximum of 10 percent of the total funds requested in their application
13914 cost estimate (federal and non-federal shares) for management costs to support the project and
13915 planning subapplications included as part of their award. Subapplicants for BRIC and FMA may apply
13916 for a maximum of five percent of the total funds requested in a subapplication for management
13917 costs. For more information, see [Part 10](#).

13918 Additional management costs considerations may be found in the Notices of Funding Opportunity
13919 (NOFOs). If any requirements in the HMA Guide conflict with the NOFO, the requirements in the NOFO
13920 take precedence.

13921 A.1. Eligible Activities

13922 Administrative costs are expenses incurred by a recipient or a subrecipient in applying for, managing
13923 and administering the federal award to ensure federal, state or tribal requirements are met.

13924 Management costs may include:

13925 Recipient:

- 13926 ▪ Delivery of technical assistance, including environmental and historic preservation and
13927 mitigation planning activities.
- 13928 ▪ Delivery of mitigation planning or mitigation-related grants management training.
- 13929 ▪ Solicitation, development, review and processing of subapplications.

- 13930 ▪ Subapplication development and technical assistance to subapplicants regarding feasibility
13931 and effectiveness and benefit-cost analysis.
- 13932 ▪ Review and processing of mitigation plans for approval.
- 13933 ▪ Post-award real property monitoring and coordination of disposition requests, including open
13934 space compatibility verification.
- 13935 ▪ Program and grants management activities outlined in Program Administration by States
13936 agreement.
- 13937 Subrecipient:
- 13938 ▪ Development and processing of subapplications.
- 13939 Both recipient and subrecipient:
- 13940 ▪ Quarterly Progress Reports and financial reporting.
- 13941 ▪ Project monitoring.
- 13942 ▪ Technical monitoring (such as site visits and technical meetings).
- 13943 ▪ Compliance activities associated with federal procurement requirements.
- 13944 ▪ Documentation of quality of work verification for Quarterly Progress Reports and closeout.
- 13945 ▪ Payment of claims.
- 13946 ▪ Closeout review, reporting and liquidation.
- 13947 ▪ Records retention.
- 13948 ▪ Purchase or rental of equipment and per diem and travel expenses directly related to the
13949 implementation of HMA programs. These costs must support management cost activities.
- 13950 ▪ Professional development of state, local or tribal government staff that is directly related to
13951 the implementation of HMA programs.
- 13952 ▪ Personnel costs directly related to performing the activities listed above.
- 13953 ▪ Indirect costs. Examples include:
- 13954 ○ Depreciation or use allowances on buildings and equipment.
- 13955 ○ Costs of operating and maintaining facilities.

13956 ○ General administration and general expenses.

13957 ○ Personnel and accounting administration.

13958 **A.1.1. PERSONNEL TIME ELIGIBLE UNDER MANAGEMENT COSTS**

13959 Personnel costs can be eligible for management costs if the employee or contractor is undertaking
13960 activities related to the receipt and administration of HMA programs.

13961 There is no universal rule for classifying certain costs as either direct or indirect (facilities and
13962 administrative) under every accounting system. A cost may be direct with respect to some specific
13963 service or function, but indirect with respect to the federal award or other final cost objective.
13964 Therefore, it is essential that each item of cost incurred for the same purpose be treated consistently
13965 in like circumstances either as a direct or an indirect facilities and administrative cost to avoid
13966 possible double charging of federal awards.⁴⁴²

13967 **A.2. Ineligible Activities**

13968 Any activities directly related to a project are not eligible under management costs. For example,
13969 architectural, engineering and design services are project costs and cannot be included under
13970 management costs.

13971 Construction management activities that manage, coordinate and supervise the construction
13972 process from project scoping to project completion are project costs. These activities cannot be
13973 included under management costs.

13974 Indirect costs are only eligible as management costs and cannot be included as costs in the
13975 activity/project cost estimate.

13976 **B. Application and Submission Information**

13977 Management costs are not automatically provided or calculated and recipients/subrecipients must
13978 include management costs in their subapplications.

13979 All recipients and subrecipients must apply for management costs before the HMGP or HMGP Post
13980 Fire application deadline. If a recipient or subrecipient does not apply for management costs by the
13981 application deadline, management costs will no longer be available for the remainder of the project.

13982 Recipients must submit a separate management costs subapplication within their award package.
13983 The subapplication for recipient management costs must be included in the overall award
13984 application or the request will not be considered.

⁴⁴² [2 Code of Federal Regulations \(CFR\) § 200.412](#)

13985 Subapplicants may apply for management costs by including them in their subapplication budget as
 13986 a separate line item.

13987 A separate management costs narrative (activity description, schedule, cost estimate and budget
 13988 narrative) must be provided in the electronic application system to apply for management costs.

13989 The documentation must include:

13990 ▪ A description of activities, personnel requirements and other costs for which the
 13991 recipient/subrecipient will use management cost assistance provided under this part.

13992 ▪ The recipient/subrecipient's plan for expending and monitoring the assistance provided
 13993 under this part and ensuring sufficient assistance is budgeted for award and subaward
 13994 closeout.

13995 For BRIC and FMA, recipients may apply for management costs in accordance with the instructions
 13996 and requirements of the NOFO.

13997 For HMGP and HMGP Post Fire, subapplicants who are requesting management costs should apply
 13998 through their recipient. All subapplications submitted to FEMA must meet the eligibility criteria in [Part](#)
 13999 [4](#). All subapplications should have a scoping narrative in accordance with [Part 6](#).

14000 **B.1. Declining Management Costs**

14001 Subrecipients are not required to apply for management costs. The recipient's hazard mitigation
 14002 officer or designated representative should document procedures in the administrative plan to
 14003 address a subrecipient's decision not to apply.

14004 **B.2. Activity and Schedule**

14005 For the applicant management cost subapplication, the scope of work narrative describes the
 14006 activities and specific tasks related to the entire grant cycle, from soliciting and developing
 14007 subapplications to closing out the subapplication/award and audits. The narrative describes
 14008 personnel requirements for the proposed activities and indicates whether contract support or
 14009 consultants will be used.

14010 For subrecipient management costs, subapplicants must provide a budget narrative within their
 14011 project budgets. The narrative should describe the activities, tasks and personnel being supported
 14012 with management costs funding.

14013 **B.3. Allowable Costs**

14014 FEMA only reimburses for actual, allowable costs, and the recipient or subrecipient must properly
 14015 document all charges.

14016 **B.3.1. UNALLOWABLE COSTS**

14017 Subapplicants who are not awarded subawards for activities will not receive reimbursement for pre-
14018 award costs incurred in developing and submitting subapplications.

14019 Salaries and other operational costs covered by other federal assistance such as Emergency
14020 Management Program Grants are not eligible.

14021 **B.3.2. BUDGET**

14022 All subapplications should include a line-item breakdown of all anticipated costs (cost estimate) and
14023 a budget narrative. A budget narrative should support the budget so FEMA can determine that costs
14024 are allocable, necessary and reasonable. The budget describes costs for which the
14025 recipient/subrecipient will use management costs assistance. The budget narrative provides
14026 information on how the assistance will be expended and monitored and shows that enough
14027 assistance will be available for closeout.

14028 Typically, a nonconstruction budget for management costs will include the following cost categories,
14029 if applicable:

14030

- **Personnel (labor) and fringe:** Provide the number of personnel, number of hours per quarter,
14031 average pay rate and fringe benefit rates.

14032

- **Travel:** Provide a breakdown of travel costs: the type of transportation, lodging, mileage and
14033 per diem rates, and estimated description of travel needs. The budget narrative should
14034 describe the travel involved and its purpose and explain how the proposed travel is
14035 necessary for the project. If travel details are unknown, the basis for proposed costs should
14036 be explained. Lump sums will not be accepted.

14037

- **Equipment:** Include a list of equipment and the intended use of the equipment. Provide a
14038 lease versus purchase analysis with each item with a value of more than \$5,000. Provide a
14039 copy of rental agreement(s) and pricing.⁴⁴³

14040

- **Supplies/materials:** A unit cost estimate for each major component or element.

14041

- **Contractual:** The estimate should be supported by a method of selection (competitive, sole
14042 source with justification, sealed bids, small purchase or micropurchase), request for
14043 proposal/scope of work, period of performance, criteria for measuring accountability, bid
14044 documents or contract. If bids have not been received, the recipient/subrecipient may
14045 submit an independent cost estimate.

14046

- **Other:** Include information in narrative on how costs were identified.

⁴⁴³ [2 CFR § 200.439](#)

14047 ▪ **Pre-award:** To be eligible for assistance, all pre-award costs should be noted in a separate
 14048 line item including the date the cost was incurred and a narrative description of the task
 14049 completed.⁴⁴⁴

14050 ▪ **Indirect costs:** Indirect costs are only eligible as management costs.

14051 **B.3.3. OBLIGATION**

14052 Subrecipient management costs will be approved when the subaward is awarded. FEMA may
 14053 obligate management costs in increments as noted below. Subrecipients will only receive
 14054 management costs in conjunction with a subaward.

14055 For HMGP and HMGP Post Fire, FEMA may advance management costs to recipients in the first year,
 14056 prior to establishing the HMGP ceiling. See [Part 10](#) for more information about applying for
 14057 management cost funds based on the 30-day and six-month estimates. Regardless of when
 14058 subawards are obligated, if the total amount of the award is adjusted for any reason, FEMA will de-
 14059 obligate management costs that exceed the 15 percent cap (10 percent for the recipient and 5
 14060 percent for the subrecipient) based on updated calculations.

14061 **B.3.3.1. Obligation Over \$6 Million**

14062 For management costs awards greater than \$6 million (including both recipient and subrecipient
 14063 shares), FEMA will attach special conditions to the award to address the increased financial risk of
 14064 these awards. The special conditions will define recipient responsibilities and the process for
 14065 reviewing assistance on an incremental basis.

14066 **B.3.3.2. Strategic Funds Management and Incremental Obligation**

14067 All subapplications, including management costs greater than \$1 million federal share, must be
 14068 reviewed to determine whether the subaward is a candidate for strategic funds management. All
 14069 recipient management cost awards greater than \$1 million and all subrecipient management costs
 14070 awarded in conjunction with subawards greater than \$1 million will follow strategic funds
 14071 management. As part of the strategic funds management review, FEMA will evaluate the need for
 14072 incremental obligation of management costs. Additionally, all recipient management costs
 14073 subawards between \$500,000 and \$1 million and all subrecipient management costs awarded in
 14074 conjunction with subawards between \$500,000 and \$1 million will be subject to incremental
 14075 obligation.

14076 For subawards subject to incremental obligation, recipient and subrecipient management costs will
 14077 be obligated in increments sufficient to cover recipient and subrecipient needs for no more than one

⁴⁴⁴ [2 CFR § 200.458](#)

14078 year unless contractual agreements require additional assistance. [Table 39](#) explains how obligations
 14079 will be handled by the size of the total subaward (federal share and required non-federal share).

14080 **Table 39: Obligation Information by Total Award Amount**

Total Award Amount	Obligation Time Frame
Recipient Management Costs for Subaward	
Greater than \$1 million	<p>Recipient management costs for subawards greater than \$1 million will follow FEMA’s strategic funds management process. The annual obligation cycle and will follow the strategic funds management procedures.</p> <p>FEMA, the recipient and the subrecipient will review the budget and work schedule to ensure the project supports incremental obligation. FEMA will execute obligations in increments, based on the project meeting an established project milestone schedule, until the project is completed.</p>
\$500,000–\$1 million	<p>Recipient management costs for subawards between \$500,000 and \$1 million will be obligated by FEMA in increments sufficient to cover recipient and subrecipient needs for no more than one year unless contractual agreements require additional assistance.</p> <p>The increment amount will be determined based upon the applicant’s budget and schedule. The number of increments will be determined by the length of period of performance (one increment per year).</p>
Less than \$500,000	<p>Recipient management costs for subawards under \$500,000 can be fully obligated at the time of award except for closeout withholding.</p>
Subrecipient Management Costs	
Greater than \$1 million (management costs equal to or more than \$50,000)	<p>Subrecipient subawards greater than \$1 million (or management costs equal to or more than \$50,000) will follow FEMA’s strategic funds management procedures.</p> <p>FEMA, the recipient and the subrecipient will review the budget and work schedule to ensure the project supports incremental obligation. FEMA will execute obligations in increments, based on the project meeting an established project milestone schedule, until the project is completed.</p>

Total Award Amount	Obligation Time Frame
\$500,000–\$1,00,000 (management costs between \$25,000 and \$50,000)	Subrecipient subawards between \$500,000 and \$1 million (or management costs between \$25,000 and \$50,000) will be obligated by FEMA in increments sufficient to cover recipient and subrecipient needs for no more than one year unless contractual agreements require additional assistance. Amount of increments are determined based on applicant’s management costs budget and schedule.
Less than \$500,000 (management costs under \$25,000)	Subrecipient subawards under \$500,000 (or management costs under \$25,000) can be fully obligated by FEMA at the time of award.

14081

14082 **B.3.3.2.1. Annual Increment**

14083 When incremental obligation is required, the recipient and the subrecipient should review their
 14084 management costs schedule, budget and narrative to determine when the assistance will be
 14085 needed. The recipient and subrecipient must develop their management costs financial plan by
 14086 budget (or fiscal) year and include a roll-up of all budget years projected to submit to FEMA for review
 14087 and approval. This requirement ensures the recipient and subrecipients adequately plan for
 14088 expending management costs through the lifecycle of the award and ensures there is enough
 14089 assistance through closeout.

14090 After the recipient has reviewed current progress and determined that the next increment of
 14091 assistance is needed, the recipient must request assistance from FEMA using the budget
 14092 amendment procedures. FEMA reviews the recipient’s request, and if the recipient/subrecipient is
 14093 ready to expend additional assistance, they will obligate the next increment of assistance. This
 14094 incremental change is generally done on an annual basis, although exceptions can be made when
 14095 justified.

14096 **B.4. Subaward Implementation**

14097 **B.4.1. PROGRAM REPORTING AND MONITORING**

14098 Quarterly financial reporting is required for recipient and subrecipient management costs. Quarterly
 14099 financial reporting and data analysis is the process of receiving and analyzing financial information
 14100 reported by the recipient and subrecipient to gauge progress and compliance with award
 14101 requirements and to gain reasonable assurance that assistance does not exceed the allowable or
 14102 approved amounts. FEMA analyzes the data for the recipient. The recipient analyzes data for the
 14103 subrecipient.

14104 Recipients and subrecipients should report the following:

14105 ▪ Any changes in personnel staffing including a change in salary or the hiring or loss of
14106 personnel.

14107 ▪ The actual number of hours worked in the quarter.

14108 ▪ Equipment purchases.

14109 ▪ Completed travel.

14110 **B.4.2. BUDGET AND SCOPE CHANGE**

14111 Additional management costs cannot be applied for after the application deadline. If management
14112 costs are approved prior to the end of the application period, they can be amended as needed, using
14113 the budget and scope of work amendment procedures in [Part 8](#).

14114 All budget and scope changes must have prior FEMA approval. All requests must be made in writing.

14115 Prior approval from FEMA is needed to amend a subaward and move project costs to management
14116 costs if management costs were obligated prior to the application deadline. A recipient/subrecipient
14117 may request a budget change if it is consistent with the program guidelines and regulations. If the
14118 subrecipient reduces or moves funds from a project budget to a management costs budget, the
14119 amount of assistance available for management costs will also be reduced. The subrecipient cannot
14120 request more than five percent of the total amount of the subaward.

14121 If management costs are approved prior to the end of the application period, they can be amended
14122 as needed, using the budget and scope of work amendment procedures in [Part 8](#).

14123 If there is a cost underrun because of scope, schedule or budget changes, FEMA’s approval will be
14124 required to redirect funds within the same subaward.

14125 **B.5. Closeout**

14126 FEMA will adjust recipient management costs awards to ensure that the amount available for
14127 management costs does not exceed the percentage permitted by each program. If the total amount
14128 of the grant award is adjusted for any reason, FEMA will de-obligate management costs that exceed
14129 allowed amounts. FEMA will adjust subrecipient management cost awards to ensure that available
14130 amounts do not exceed the permitted percentage permitted for each program, including approved
14131 budget amendments or underruns at closeout.

14132 For HMGP, recipient management costs are available for actual documented expenses up to 10
14133 percent of the total amount of the grant award. The total amount of the grant award means the total
14134 amount of contributions based on subapplications submitted when the HMGP application period
14135 closes or when the total HMGP ceiling is determined, whichever is later. For HMGP, subrecipients
14136 may claim actual documented management costs up to five percent of the actual subaward,
14137 inclusive of budget amendments.

14138 **B.5.1. CLOSEOUT WITHHOLDING**

14139 For HMGP and HMGP Post Fire, FEMA will withhold three percent of the recipient management costs
 14140 award until closeout to ensure timely management costs closeout. For recipients with an enhanced
 14141 mitigation plan and who also have a Program Administration by States designation, FEMA will reduce
 14142 the withholding to two percent of the recipient management costs award. FEMA will provide the
 14143 withheld assistance after the recipient closes the last nonmanagement cost subaward. FEMA will
 14144 release assistance after the last nonmanagement costs subaward has been closed. The withholding
 14145 does not apply to the subrecipient’s management costs award, only the recipient’s award.

14146 **B.5.2. AVAILABILITY OF MANAGEMENT COSTS**

14147 For HMGP and HMGP Post Fire, the subrecipient can claim management costs incurred within the
 14148 subaward period of performance. For HMGP and HMGP Post Fire, the recipient can claim
 14149 management costs incurred within the award period of performance.

14150 FEMA analyzes if payments have been made outside of the period of performance date and if the
 14151 Quarterly Progress Report is accurate at the time of the extension request. FEMA may deny the
 14152 period of availability extension request if payments have been made outside of the period of
 14153 performance or if the quarterly financial and progress reports are not accurate.

14154 The recipient should provide a request that includes the following information:

- 14155 ▪ Description of management costs work performed by recipient personnel and or contract
 14156 support.

- 14157 ▪ A cost estimate for the remainder of the award period of performance. The cost estimate
 14158 must identify costs by budget year (recipient fiscal year or federal fiscal year). The cost
 14159 estimate must also describe personnel costs by position and number of labor hours
 14160 anticipated for the activity or general category of activities. The cost categories to include
 14161 are:
 - 14162 ○ Budget year.
 - 14163 ○ Salaries (with overtime).
 - 14164 ○ Fringe benefits.
 - 14165 ○ Operating expenses.
 - 14166 ○ Contracts.
 - 14167 ○ One-time expenditures.
 - 14168 ○ Equipment.
 - 14169 ○ Vehicles.

- 14170
 - Equipment purchased/leased and the anticipated disposal method.
- 14171
 - A scope of work and project schedule for remaining period of performance that includes a
- 14172
 - staffing organizational chart identifying the responsibilities of each position.
- 14173
 - A copy of scope of work for any contracts used to support recipient management costs
- 14174
 - activities.
- 14175
 - A copy of the administrative plan. The plan must be updated to include Quarterly Progress
- 14176
 - Reports procedures so FEMA can adequately measure progress and the plan of action for
- 14177
 - closing the award and metrics for the number of projects to be closed per year.
- 14178
 - Accurate current quarterly financial and progress reports.
- 14179
 - Refer to the relevant fiscal year’s NOFO for information regarding the availability of management
- 14180
 - costs for BRIC and FMA.

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Part 14. Program Administration by States

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A. Program Administration by States Background and Overview

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The Sandy Recovery Improvement Act of 2013⁴⁴⁵ (enacted concurrently with the Disaster Relief Appropriations Act of 2013)⁴⁴⁶ amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act).⁴⁴⁷ The goals of the Sandy Recovery Improvement Act were to (1) establish efficiencies in federal disaster recovery programs that would expedite the Hurricane Sandy recovery process and future disaster recovery nationwide and (2) reduce costs.

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Section 1104(b) of Sandy Recovery Improvement Act amended the Hazard Mitigation Grant Program (HMGP) by creating section 404(c) of the Stafford Act and authorizing the Federal Emergency Management Agency (FEMA) to implement the Program Administration by States (PAS) as a pilot program before developing a rule permanently implementing PAS.⁴⁴⁸

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Under the PAS Pilot, FEMA may delegate defined program responsibilities to recipients based on an analysis of recipients' staffing plan, grants management experience, hazard mitigation experience and demonstrated past performance.⁴⁴⁹ For example, generally, FEMA reviews and approves all HMGP subapplications and hazard mitigation plans. Under the PAS Pilot, FEMA may grant the recipient authority to conduct agreed upon reviews and grant approvals with limited FEMA oversight. Additionally, under the PAS Pilot, the recipient can have increased control of approval of scope of work changes, cost overruns and underruns, reimbursement claims to subrecipient communities, and approval of local mitigation plans. While FEMA has a reduced role under PAS, it maintains oversight responsibilities. The PAS Pilot is intended to facilitate and accelerate the review and approval process of various elements in managing the program.

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Participation in PAS is optional. The optional PAS Pilot applies to HMGP for eligible activities immediately following any major disaster declaration on or after January 29, 2013, and for any declaration before this date for which the application period is still open (from DR-4010-KS forward).

⁴⁴⁵ Public Law 113-2 (January 29, 2013), Division B

⁴⁴⁶ Public Law 113-2 (January 29, 2013), Division A

⁴⁴⁷ Public Law 100-707 (November 23, 1988); amending the Disaster Relief Act of 1974, Public Law 93-288 (May 22, 1974)

⁴⁴⁸ [42 United States Code \(U.S.C.\) § 5170c\(c\)](#)

⁴⁴⁹ [42 U.S.C. § 5170c\(c\)\(2\)](#)

14207 Federally recognized tribes that choose to be a recipient may request PAS delegations. In this part,
14208 unless otherwise indicated, the term recipient will refer to states, federally recognized tribes and
14209 territories that receive HMGP and HMGP Post Fire assistance directly from FEMA.

14210 **B. State, Tribal or Territorial PAS Request**

14211 A recipient wishing to participate in PAS must submit a written request to FEMA indicating their
14212 desire to implement PAS. As part of the written request for PAS, the recipient may elect to assume
14213 primary responsibility for some or all elements of HMGP and HMGP Post Fire or can request grant
14214 administration delegations from FEMA.

14215 The responsibilities that FEMA may delegate include but are not limited to reviewing the project and
14216 planning applications, completing Benefit-Cost Analyses (BCAs) for projects, approving scope of work
14217 modifications and moving assistance between applicable projects. Recipients can also approve local
14218 mitigation plans under PAS. FEMA staff will assess the recipient's request against the criteria
14219 provided in [Part 14](#), section S. PAS Delegated Activity Categories.

14220 **B.1. PAS: Disaster Declaration**

14221 Recipients can request PAS at any time, including before submitting applications, during the
14222 application period and even post-award for a declaration.

14223 Recipients who are interested in the delegation of grants management activities should contact their
14224 regional Hazard Mitigation Assistance (HMA) representative prior to submitting a request letter to the
14225 FEMA regional office.

14226 **B.2. PAS: Nondisaster Declaration of Local Mitigation Plan Approval**

14227 A state without disaster declarations can request that FEMA delegates the review of local hazard
14228 mitigation plans to the recipient.⁴⁵⁰ Because federally recognized tribes do not review local
14229 mitigation plans, they cannot request that FEMA delegates to them the review of local mitigation plan
14230 approval.

14231 **C. PAS Criteria**

14232 To establish eligibility for administering PAS, the requesting recipient must have:⁴⁵¹

- 14233 ▪ A current FEMA-approved state or tribal (standard or enhanced) mitigation plan.
- 14234 ▪ Demonstrated past performance in the grant management area(s).

⁴⁵⁰ [44 Code of Federal Regulations \(CFR\) § 201.3\(c\)\(6\)](#)

⁴⁵¹ Section 404(c) of the Stafford Act, [42 U.S.C. § 5170c\(c\)](#)

- 14235
- Demonstrated commitment to mitigation.

14236 **D. PAS FEMA Assessment**

14237 After discussing its interest in PAS with the FEMA regional office, the recipient must submit a request
 14238 letter to its FEMA regional administrator. The request letter will indicate the activities the recipient is
 14239 interested in managing and will contain the supporting documentation demonstrating the recipient
 14240 can manage HMGP and HMGP Post Fire and the recipient’s commitment to mitigation.

14241 Upon receipt of the recipient’s PAS request letter and supporting documentation, the FEMA regional
 14242 HMA program staff and mitigation planning program staff (if the recipient requests nondisaster
 14243 delegation of local mitigation plan approval, when applicable) must review the request within 30
 14244 calendar days. FEMA will assess the recipient’s request against the criteria provided in [Part 14](#),
 14245 section S. PAS Delegated Activity Categories.

14246 If FEMA determines the recipient meets the criteria, the agency will contact the recipient to begin
 14247 drafting an operational agreement. FEMA may request additional information or documentation from
 14248 the recipient if the information is lacking. If the request is denied, FEMA will notify the recipient with
 14249 a letter explaining why the request was denied and procedures for reconsideration.

14250 **E. PAS Operational Agreement**

14251 FEMA will develop an operational agreement (as part of the FEMA-State or FEMA-Tribal Agreement)
 14252 with approved PAS recipients that outlines agreed-upon delegations. The operational agreement
 14253 must outline applicability, FEMA and recipient responsibilities, and the process for suspending or
 14254 terminating the program if FEMA determines the recipient is not administering HMGP/HMGP Post
 14255 Fire or mitigation planning activities in a satisfactory manner.

14256 **E.1. PAS: Disaster Declaration**

14257 Because this is a pilot program, the operational agreements will be tied to HMGP and HMGP Post
 14258 Fire awards except for the nondisaster delegation of local mitigation plan approval, to which FEMA
 14259 and the recipient may agree without an HMGP or HMGP Post Fire award. Assigning PAS designations
 14260 to HMGP and HMGP Post Fire awards will allow recipients to build capability over time. FEMA uses
 14261 the PAS Pilot to consult with recipients to establish criteria for approval of an application to
 14262 administer HMGP and HMGP Post Fire and develop program regulations to implement the PAS
 14263 program.

14264 Updated operational agreements will be developed for each declared disaster for which a recipient
 14265 requests delegation of some HMGP and HMGP Post Fire administration elements. Recipients with
 14266 multiple open disasters may have separate operational agreements for each disaster and may
 14267 request different activities for each disaster. Operational agreements expire when the HMGP and
 14268 HMGP Post Fire period of performance ends.

14269 **E.2. PAS: Nondisaster Declaration of Local Mitigation Plan Approval**

14270 Assigning PAS designations outside of HMGP and HMGP Post Fire awards for local mitigation plan
 14271 approval will encourage states to build capability and partnerships that will support risk reduction
 14272 efforts by establishing priorities for implementing mitigation strategies using a wide range of
 14273 resources, including HMGP and HMGP Post Fire. It will also allow states that approve local mitigation
 14274 plans under a disaster agreement to continue local mitigation plan approvals once the disaster
 14275 agreement has ended.

14276 Nondisaster agreements for approval of local mitigation plans are limited to five years. If a disaster
 14277 declaration is received, the state must transition into a disaster agreement. When a state is
 14278 considering transitioning from a disaster to nondisaster or nondisaster to disaster agreement, FEMA
 14279 may use the amendment process provided for in the agreement instead of requiring the state to
 14280 submit a new or updated PAS request. The state’s mitigation planning performance must be in good
 14281 standing to transition to another type of agreement. If FEMA and the state cannot settle upon a
 14282 transition between a nondisaster and disaster agreement within a reasonable time frame, FEMA will
 14283 terminate the agreement.

14284 **F. PAS Update to HMGP and HMGP Post Fire**
 14285 **Administrative Plan**

14286 If approved for the PAS Pilot under the disaster delegation, the recipient must update its HMGP or
 14287 HMGP Post Fire administrative plan.⁴⁵² HMGP/HMGP Post Fire administrative plans must outline
 14288 those components the recipient will administer under PAS, in accordance with the HMA Guide.

14289 **F.1. PAS: Disaster Declaration**

14290 The recipient should update its HMGP or HMGP Post Fire administrative plan by preparing a PAS
 14291 addendum that provides a procedural guide that details how the recipient will administer delegated
 14292 activities. FEMA must review and approve this plan.

14293 **F.2. PAS: Nondisaster Declaration of Local Mitigation Plan Approval**

14294 The state should develop a management plan or procedural guide that details how the state will
 14295 administer the delegated activity of local mitigation plan approval. FEMA must review and approve
 14296 this management plan or procedural guide.

⁴⁵² [44 CFR § 206.437](#)

14297 **G. PAS Delegation Options**

14298 Recipients participating in the PAS Pilot may opt to do many of the same activities they currently
 14299 perform. Final review and approval by FEMA will not be required in most cases.

14300 **G.1. PAS: Application Review**

14301 Recipients will review and approve HMGP and HMGP Post Fire subapplicant applications and pre-
 14302 award amendment requests using FEMA’s expedited application approval process for obligating
 14303 assistance.

14304 Recipients using the expedited application approval process must submit the complete
 14305 subapplication and the following:

- 14306 ▪ Minimum Eligibility Criteria Checklist or equivalent documentation.
- 14307 ▪ Management costs.
- 14308 ▪ A project summary consisting of the following:
 - 14309 ○ Major disaster declaration number from which mitigation funds will be obligated by
 14310 FEMA.
 - 14311 ○ Project number (FEMA will provide to recipient).
 - 14312 ○ Subapplicant name(s) (i.e., community and point of contact information, National Flood
 14313 Insurance Program status).
 - 14314 ○ U.S. Congressional District (senators and representatives).
 - 14315 ○ Federal Information Processing Standard code (FEMA will provide to recipient).
 - 14316 ○ Unique Entity Identifier local or tribal mitigation plan information.
 - 14317 ○ Brief description of the project.
 - 14318 ○ Project location with global positioning system coordinates and flood zone.
 - 14319 ○ Flood insurance policy information, if applicable.
 - 14320 ○ Total project cost.
 - 14321 ○ Amount requested (federal share).
 - 14322 ○ Non-federal cost share amount and source (e.g., local, global credit pool).
 - 14323 ○ Cost-effectiveness determination.

- 14324 ○ Proposed performance period (completion date).
- 14325 ○ List of alternatives considered (e.g., acquisition, elevation, drainage upgrade).
- 14326 ○ Reviews/results.
- 14327 ○ Certification that the recipient has reviewed and determined this project is eligible.
- 14328 – All documentation needed for the project environmental review and all coordinating
14329 agency consultation letters and memorandums.
- 14330 – Benefit-cost summary sheet.
- 14331 – Project site map, including FEMA flood map data.
- 14332 – Assurances.

14333 Once FEMA receives these items, FEMA will begin the process to award assistance.

14334 For the subapplications reviewed, recipients can approve the assistance of pre-award planning and
14335 project costs incurred by subrecipients.

14336 **G.2. PAS: Benefit-Cost Analysis**

14337 Recipients participating in PAS may review and approve a subrecipient’s BCAs without FEMA review.

14338 Recipients prepare their own BCAs without FEMA review.

14339 **G.3. PAS: Grants Management**

14340 Recipients will approve post-award subrecipient scope of work modifications (that have no change to
14341 the project activity and no resulting need for additional federal assistance) without FEMA review. If
14342 there are modifications to the scope of work, reference the procedures in [Part 8](#).

14343 The recipient will submit a Minimum Eligibility Criteria Checklist or equivalent documentation and a
14344 project summary. Recipients may develop and use their own checklists if approved by FEMA.

14345 Recipients will update Quarterly Progress Reports accordingly.

14346 Recipients will approve time limit extensions for subapplications with no impact to the recipient's
14347 HMGP or HMGP Post Fire award period of performance. Recipients will document these changes in
14348 Quarterly Progress Reports and electronic data systems.

14349 Recipients will administer HMGP and HMGP Post Fire for specific project types submitted by the
14350 subrecipient, including property acquisition and structure demolition, wildfire mitigation, safe rooms,
14351 structural elevation or other eligible hazard mitigation project types.

14352 **G.4. PAS: Fiscal Management**

14353 Without prior approval from FEMA, recipients will approve post-award budget revisions using
 14354 assistance available due to cost underruns from other approved subawards. This assistance can be
 14355 moved to approved subawards with cost overruns. Assistance can only be used within the same
 14356 HMGP or HMGP Post Fire award.

14357 Prior to its approval, the recipient must determine if the project meets eligibility requirements,
 14358 including cost-effectiveness and cost share. The recipient will update project files with an updated
 14359 eligibility checklist for project/planning subapplications or equivalent documentation. Recipients may
 14360 develop and use their own checklists if approved by FEMA. The recipient will update and submit the
 14361 project summary using electronic data systems provided by FEMA and will update Quarterly Progress
 14362 Reports accordingly.

14363 Recipients will determine the eligible amount of reimbursement for each subrecipient claim and
 14364 process payment without FEMA's approval.

14365 **G.5. PAS: Mitigation Planning**

14366 States participating in PAS must approve local mitigation plans using the process described in the
 14367 HMA Guide and coordinate with the appropriate FEMA regional mitigation planning lead on a monthly
 14368 basis regarding FEMA's updates to mitigation plan status database.

14369 FEMA will continue to send final approval letters in accordance with the [Local Mitigation Planning](#)
 14370 [Policy Guide](#) (released April 19, 2022; effective April 19, 2023).⁴⁵³ When tribes participate in multi-
 14371 jurisdictional plans with local governments, FEMA will also review the plan for compliance with tribal
 14372 mitigation plan requirements and the [Tribal Mitigation Plan Review Guide](#) (December 2017) and
 14373 send final approval letters to tribes.⁴⁵⁴

14374 **H. Environmental Review Under PAS**

14375 For purposes of the PAS Pilot, FEMA will not delegate the environmental and historic preservation
 14376 (EHP) review of HMGP and HMGP Post Fire subapplicant applications and pre-award amendments
 14377 and subrecipient post-award amendments to the recipients. The statutory provision for the PAS Pilot
 14378 does not provide sufficient authority to delegate EHP review to recipients for compliance with HMGP
 14379 and HMGP Post Fire eligibility and EHP requirements. FEMA has final review and approval authority
 14380 on the EHP impact of any proposed federal action or undertaking. However, recipients may assist
 14381 FEMA with EHP review preparation (see [Part 3](#), I. Environmental and Historic Preservation Review
 14382 and Compliance). Activities that assist FEMA with the preparation of the EHP review include
 14383 completing project scope, describing the proposed activity and providing background information for
 14384 assessing the environmental impact of the federal action on historic properties, threatened and

⁴⁵³ The *Local Mitigation Plan Review Guide* (October 1, 2011) is in effect until April 18, 2023.

⁴⁵⁴ [44 CFR § 201.7](#)

14385 endangered species, critical habitats, wetlands, floodplains and low-income and minority
 14386 populations. Recipients should work with their subapplicants/subrecipients to evaluate and
 14387 document environmental and cultural resource information involved with the proposed HMGP and
 14388 HMGP Post Fire projects to consider alternatives to avoid, minimize and/or mitigate potential
 14389 adverse impacts to the human environment and to integrate sustainable practices as early as
 14390 possible in project formulation.

14391 Before approving any subapplicant applications, pre-award amendments or subrecipient post-award
 14392 amendments, recipients must coordinate with FEMA regional EHP staff to receive EHP clearance for
 14393 approving HMGP and HMGP Post Fire subapplications and pre-award amendments and post-award
 14394 amendments. HMGP and HMGP Post Fire assistance cannot be obligated until FEMA has completed
 14395 the EHP review process. The Minimum Eligibility Criteria Checklist or equivalent documentation and
 14396 the project summary that recipients agree to submit will provide the FEMA regional EHP staff with the
 14397 information needed to complete EHP review in most cases. Recipients will be required to submit to
 14398 FEMA regional EHP staff any additional information or documentation needed for FEMA to complete
 14399 the review. Recipients must coordinate with the subapplicant/subrecipient to obtain additional
 14400 information.

14401 **I. State Approval of Local Mitigation Plans Under PAS**

14402 Typically, a national panel comprised of FEMA headquarters and regional mitigation planning staff
 14403 reviews the state’s initial request for delegation of local mitigation plan review approval.

14404 After review of the request is completed and FEMA determines the state’s past performance is
 14405 adequate, FEMA mitigation planners and the state will conduct a joint review of local mitigation
 14406 plans. The intent is to ensure a common understanding of the process and that procedures related
 14407 to local mitigation plan review and approval are completed in accordance with the *Local Mitigation*
 14408 *Planning Policy Guide*.⁴⁵⁵ There are several sections of the Local Mitigation Plan Review Tool
 14409 (Appendix A of the *Local Mitigation Planning Policy Guide*), such as the Plan Assessment, that are
 14410 completed by FEMA and will have to be completed by the state.

14411 The joint reviews are intended to provide technical assistance in completing these sections. The
 14412 length of the joint review period will be negotiated between FEMA and the state. The joint reviews are
 14413 intended for the first plans approved under the agreement or may involve reviewing past plans when
 14414 new plan submissions are not available.

14415 If states request delegation of local mitigation plan approvals, they are expected to complete the
 14416 following activities:

⁴⁵⁵ The *Local Mitigation Planning Policy Guide* will be effective April 19, 2023, for all plan approvals. The *Local Mitigation Plan Review Guide* is in effect until April 18, 2023, for all plan approvals.

- 14417 ■ States will review and approve local mitigation plans within 45 calendar days of receipt,
14418 whenever possible.
- 14419 ■ States will notify FEMA when a local mitigation plan is adopted and approved and provide the
14420 following items to FEMA:
 - 14421 ○ Copy of the local mitigation plan.
 - 14422 ○ Copy of the completed Local Mitigation Plan Review Tool.
 - 14423 ○ Copies of the adoption resolutions or documentation.
 - 14424 ○ State’s approval notification.
 - 14425 ○ Local jurisdiction’s contact information.
- 14426 ■ States will be required to send monthly updates to the FEMA regional mitigation planning
14427 office, describing plan approval status, the status of plan reviews, technical assistance
14428 activities and scheduled training. States will also update the Mitigation Planning Portal if
14429 delegated permission from the FEMA regional mitigation planning office.
- 14430 FEMA will continue to send final approval letters in accordance with the *Local Mitigation Planning*
14431 *Policy Guide*.

14432 **I.1. PAS: Disaster Delegation**

14433 States can request delegation of local mitigation plan approval under a HMGP or HMGP Post Fire
14434 award issued as part of a disaster declaration.

14435 **I.2. PAS: Nondisaster Delegation**

14436 States can request delegation of local mitigation plan approval when there is no open disaster
14437 declaration.

14438 **J. PAS Performance Monitoring**

14439 FEMA will perform monitoring visits and provide tools and training as needed. FEMA’s monitoring
14440 program will vary depending on the size and scope of the HMGP or HMGP Post Fire award and the
14441 activities delegated to the recipient. As stated in the agreement, FEMA staff will conduct an overall
14442 review to determine if processes agreed to in the agreement and administrative plans or
14443 management plans are being followed. Monitoring visits will occur at least once a year. After the
14444 monitoring visit is complete, FEMA will provide the recipient with a monitoring report and will work
14445 with the recipient to resolve any issues.

14446 **J.1. PAS: Disaster Delegation Grants Management Activities**

14447 Ongoing monitoring activities will be centered around the quarterly reporting periods. FEMA regional
 14448 offices will evaluate the recipient’s performance quarterly by reviewing award application data,
 14449 quarterly or monthly reports, fiscal management processes, staffing allocations, key personnel
 14450 changes and subaward procedures and processing. Annually, or as needed, FEMA will also conduct
 14451 more in-depth monitoring activities either on-site or through desk reviews.

14452 Monitoring visits will most likely coincide with grants management activity. For example, if FEMA has
 14453 delegated the application review to the recipient, FEMA might conduct a review at the halfway point
 14454 of the application period to ensure compliance. Review frequency can be addressed during the
 14455 drafting of the agreement.

14456 During a second-level review (desk review or site visit), FEMA will review project files for
 14457 documentation compliance. For those recipients requesting delegation of fiscal activities, FEMA will
 14458 review the recipient’s audit report and use the fiscal testing system to follow up on concerns
 14459 identified in the audit. As part of monitoring activities, FEMA regional staff may also interview
 14460 recipient staff working on HMGP and HMGP Post Fire as part of the PAS Pilot (and subrecipients as
 14461 needed) to learn how the program is being managed from their perspective.

14462 Using FEMA’s questions from a data collection plan for evaluation of the PAS Pilot, the agency will
 14463 interview subrecipients to collect data to evaluate the effectiveness of the PAS Pilot.

14464 **J.2. PAS: Disaster and Nondisaster Delegation of Local Mitigation Plan**
 14465 **Approval**

14466 Ongoing monitoring activities will be centered on the monthly updates provided to the FEMA regional
 14467 mitigation planner, who will evaluate the state’s performance by reviewing plan status data,
 14468 technical assistance activities and any changes in key personnel.

14469 If FEMA delegates the local mitigation plan approval to the recipient, FEMA regional mitigation
 14470 planning staff will conduct monitoring activities and make determinations regarding compliance.
 14471 FEMA will conduct at least one plan review audit per year.

14472 **K. Noncompliance Under PAS**

14473 Recipients will be expected to continue to maintain performance as agreed to in the agreement and
 14474 administrative plan or the management plan for the nondisaster option for review of local mitigation
 14475 plans. Recipients will maintain the performance levels under which they were evaluated for PAS
 14476 status. If FEMA finds significant declines in performance, the agency will provide the recipient
 14477 information regarding the consequences for noncompliance, including the circumstances in which
 14478 PAS status can be revoked. For more information on noncompliance and actions to address
 14479 deficiencies, see [Part 8](#).

14480 **L. Revocation of PAS Status**

14481 FEMA will discuss with the recipient any findings from monitoring that may require remediation. The
14482 recipient must provide a plan and timeline to address the findings within 30 calendar days of notice
14483 from the region. If the corrective measures are not implemented or cannot be implemented within a
14484 reasonable time frame, FEMA will notify the recipient of the options available, including possible
14485 revocation of the PAS status. For more information on noncompliance and actions to address
14486 deficiencies, see [Part 8](#).

14487 **M. Subapplicant or Subrecipient Appeal Under PAS**

14488 The HMGP and HMGP Post Fire appeal process will not change under PAS. FEMA will continue to
14489 review appeals from subapplicants and subrecipients regarding eligibility of activities or costs.⁴⁵⁶

14490 **N. Financial Statement Audits Under PAS**

14491 Recipients are responsible for obtaining annual audits in accordance with [2 Code of Federal](#)
14492 [Regulations \(CFR\) part 200](#). The financial audit determines if the recipient’s financial documentation
14493 and processes are consistent with generally accepted accounting principles. These audits will help
14494 FEMA determine whether HMGP and HMGP Post Fire assistance is spent in accordance with
14495 program regulations and this PAS Pilot guidance.

14496 For recipients with HMA awards, annual audits are required regardless of where the recipient is in
14497 the grant management process.

14498 **O. Program Audits Under PAS**

14499 Program audits are an impartial review of program documents to provide an independent
14500 assessment of the performance of HMGP and HMGP Post Fire.

14501 Because PAS is a pilot program, FEMA anticipates that a program audit may be completed to
14502 determine the effectiveness of the PAS Pilot. The information in the audit will be used to help
14503 improve the provision of assistance under HMGP and HMGP Post Fire and report on program
14504 performance. FEMA and the DHS Office of the Inspector General will continue to conduct program
14505 audits of HMGP and HMGP Post Fire.

14506 **P. PAS and High-Risk Recipients**

14507 States, federally recognized tribes or territories classified as high-risk recipients cannot participate in
14508 or request PAS delegation because FEMA has determined the recipient has a documented history of

⁴⁵⁶ [44 CFR § 206.440](#)

14509 unsatisfactory performance. High-risk recipients receive additional project monitoring and require
 14510 additional FEMA approvals to conduct award activities.

14511 **Q. PAS Roles and Responsibilities**

14512 The PAS Pilot is administered through a coordinated effort between FEMA and the recipient. While
 14513 both entities must work together to meet the overall objective of streamlined program delivery, each
 14514 has a different role.

14515 FEMA will:

- 14516 ▪ Provide an application process for PAS privileges as well as evaluation criteria.
- 14517 ▪ Provide appropriate guidance on requirements of any delegated responsibilities noted in the
 14518 administrative plan.
- 14519 ▪ Receive and approve the administrative plan or management plan for nondisaster option for
 14520 review of local mitigation plans.
- 14521 ▪ Monitor recipient performance by reviewing Quarterly Progress Reports and or monthly
 14522 planning reports.
- 14523 ▪ Monitor recipient performance through periodic evaluations to ensure PAS activities comply
 14524 with program requirements.
- 14525 ▪ Continue to manage and coordinate funding with recipient in accordance with HMGP
 14526 Disaster Spend Plan (see [Part 10, A.12. HMGP: Disaster Spend Plan](#)), strategic funds
 14527 management and Large Project Notification (see [Part 7, B.2. Large Project Notification](#))
 14528 requirements.
- 14529 ▪ Conduct EHP reviews.

14530 Recipients must:

- 14531 ▪ Incorporate PAS delegated functions into the administrative plan or management plan for
 14532 nondisaster option for approval of local mitigation plans.
- 14533 ▪ Formulate hazard mitigation objectives based on the strategy in the FEMA-approved
 14534 mitigation plan and any more recent information or data.
- 14535 ▪ Decide how to distribute assistance based on priorities established by the mitigation
 14536 planning process.
- 14537 ▪ Adhere to all applicable HMGP and HMGP Post Fire statutes and regulations, including
 14538 current guidance regarding HMGP/HMGP Post Fire administration.

- 14539 ▪ Meet all specified timelines.
- 14540 ▪ Maintain a continuing capacity to manage HMGP and HMGP Post Fire.
- 14541 ▪ Continue to manage and coordinate funding with FEMA in accordance with HMGP Disaster
14542 Spend Plan, strategic funds management, and Large Project Notification requirements.
- 14543 ▪ Retain documentation for FEMA quarterly audit reviews.

14544 **R. PAS Evaluation**

14545 To determine the PAS Pilot’s effectiveness, a review team composed of recipient and FEMA
14546 representatives will conduct an evaluation. For recipients that participate, an evaluation will be
14547 conducted six years after the program starts. This evaluation will be different from the monitoring
14548 and auditing activities and will focus on the program as a whole rather than recipient performance.
14549 This team will evaluate the level of success of the PAS Pilot based on the previously identified
14550 program evaluation criteria, identify PAS Pilot components that worked well and make
14551 recommendations for any needed improvements or changes.

14552 Performance metrics used to evaluate the PAS Pilot include measuring if recipient-administered
14553 programs are more efficient than traditionally run programs. Specifically, metrics will be used to
14554 evaluate if the program increased or decreased costs to administer HMGP and HMGP Post Fire,
14555 expedited or delayed obligations and project completions, and contributed to the overall
14556 effectiveness of the program.

14557 **S. PAS Delegated Activity Categories**

14558 The following sections address each delegated activity category. These sections provide a
14559 measurement item and/or target to document past performance for the specified delegated activity
14560 type. Recipients must meet the required measurement for PAS approval. In reviewing recipient
14561 requests for PAS participation, FEMA will only assess delegated activities requested by the recipient.

14562 **S.1. PAS: Time frame for Past Performance**

14563 In general, FEMA will review the past performance of the last four quarters submitted to the agency
14564 prior to receiving the recipient request. FEMA may extend this time frame when insufficient data are
14565 available; these extensions will be noted when needed. For recipients updating their PAS status for a
14566 new disaster declaration, FEMA will use the last four quarterly reports submitted prior to the disaster
14567 declaration.

14568 **S.2. PAS: Data Needed in Recipient Request Letter**

14569 The amounts and types of data needed to support the recipient’s request will vary based on the
14570 types of delegated activities selected. Recommended data elements are noted in each table and the

14571 list following them. Recipients may submit other data they determine may be necessary to support
 14572 their request. FEMA will supplement its review of the request with grants management data for the
 14573 recipient.

14574 **S.2.1. PAS: APPLICATION REVIEW**

14575 **Step 1:** Review and approve HMGP and HMGP Post Fire subapplications and pre-award amendment
 14576 requests using FEMA’s expedited application approval process for obligating assistance. Recipients
 14577 can select one or all the following:

- 14578 ▪ Project subapplicants (all projects or selected projects).
- 14579 ▪ Planning subapplications.
- 14580 ▪ Management costs.

14581 Note: If a recipient chooses a subset of project types, FEMA will only evaluate related
 14582 subapplications. For example, FEMA would only review structural elevation subapplications when the
 14583 recipient requests delegated review limited to structural elevation subapplications.

14584 **Step 2:** Approve finding of pre-award planning and project costs incurred by subrecipients.

14585 The following list highlights the data needed to demonstrate past performance of application review
 14586 when requesting delegation of application review activities (steps 1 and 2 above) along with the
 14587 measurable target(s) associated with each item:

- 14588 ▪ **Administrative plan:** List of declared disasters, HMGP and HMGP Post Fire awards and plan
 14589 approval dates. The administrative plan is approved by FEMA within 90 calendar days of the
 14590 declaration date.
- 14591 ▪ **Electronic data systems:** List of subapplications and document applications that were
 14592 submitted electronically. All applications are entered into FEMA’s electronic application
 14593 systems.
- 14594 ▪ **Application eligibility and completeness:** List of subapplications and amendments for HMGP,
 14595 HMGP Post Fire, Building Resilient Infrastructure and Communities (BRIC) and Flood
 14596 Mitigation Assistance (FMA); date the application was submitted by the recipient; date
 14597 approved by FEMA; and notation of whether the eligibility checklist or equivalent
 14598 documentation was provided to FEMA.
 - 14599 ○ A complete eligibility checklist for planning or project subapplications or equivalent
 14600 documentation is prepared for all subapplications. Recipients may develop and use their
 14601 own checklists if approved by FEMA and the recipient.

14602 ○ All subapplications are determined to be complete by FEMA within 90 calendar days of
 14603 submittal or selection for further review. Required EHP reviews and consultations will not
 14604 be included in the 90-day time frame calculation.

14605 ■ **Grant application extensions:** List of HMGP, HMGP Post Fire, BRIC, FMA and Pre-Disaster
 14606 Mitigation (PDM) awards; application deadline date, if applicable; and date the request of
 14607 extension was requested, if applicable. Any request to extend the HMGP or HMGP Post Fire
 14608 application period was submitted at least 30 calendar days prior to the end of the expiration
 14609 of the application period.

14610 ■ **Training:** Staffing organizational chart or roster and a summary listing of training completed
 14611 within the past five years as provided by recipient’s hazard mitigation officer, designated
 14612 representative or training officer.

14613 ○ Staff managing application development under PAS have completed FEMA Emergency
 14614 Management Institute EO212: *Unified Hazard Mitigation Assistance: Developing Quality
 14615 Application Elements Course* and other HMA-related courses.

14616 ○ Staff managing application development under PAS have completed FEMA Emergency
 14617 Management Institute IS-253.A *Overview of FEMA’s Environmental and Historic
 14618 Preservation Review* course.

14619 **S.2.2. PAS: BENEFIT-COST ANALYSES**

14620 **Step 1:** Review and approve BCA submitted by subrecipients without FEMA review.

14621 **Step 2:** Prepare own BCA without FEMA review.

14622 The following list highlights the data needed to demonstrate past performance of BCAs when
 14623 requesting delegation of BCA activities (steps 1 and 2 above) along with the measurable target(s)
 14624 associated with each item:

14625 ■ **BCA:** List of subapplications (HMGP, HMGP Post Fire, BRIC, PDM and FMA), date BCA
 14626 submitted, date reviewed and accepted as correct by FEMA. All applications are determined
 14627 to be completed by FEMA within 90 calendar days of submittal or selection for further review,
 14628 including all data requested by FEMA to support cost-effectiveness determinations. Required
 14629 EHP review and consultations will not be included in the 90-day review time frame
 14630 calculation.

14631 ■ **Training:** Staffing organizational chart or listing and a summary listing of training completed
 14632 within the past five years as provided by the hazard mitigation officer (or designated
 14633 representative) or training officer.

14634 ○ Recipient staff who will prepare or review BCAs under PAS Agreement have completed a
 14635 FEMA BCA course ([IS-276.A: Benefit-Cost Analysis Fundamentals](#) or its equivalent). Staff

14636 should complete modules for project types or hazards anticipated. Completion of all
 14637 modules is not required.

- 14638 ○ Recipient staff who have prepared BCA documentation have completed course E0212 or
 14639 its equivalent.

14640 **S.2.3. PAS: GRANTS MANAGEMENT**

14641 **Step 1:** Approve post-award subrecipient scope of work modifications (that have no change to the
 14642 project activity and no resulting need for additional federal assistance) without FEMA review. Submit
 14643 an updated Minimum Eligibility Criteria Checklist or equivalent documentation and project summary
 14644 via electronic data systems provided by FEMA. Recipients may develop and use their own checklists
 14645 if approved by FEMA. Update Quarterly Progress Reports accordingly.

14646 **Step 2:** Approve time limit extensions for subawards with no impact to the HMGP and HMGP Post
 14647 Fire award period of performance. Document these changes in Quarterly Progress Report and
 14648 electronic data systems.

14649 **Step 3:** Administer HMGP and HMGP Post Fire for specific project types submitted by the
 14650 subrecipient, including property acquisition and structure demolition, wildfire mitigation, safe rooms,
 14651 structural elevation or other eligible hazard mitigation project type.

14652 The following list highlights the data needed to demonstrate past performance of grants
 14653 management when requesting delegation of grants management activities (steps 1, 2 and 3 above)
 14654 along with the measurable target(s) associated with each item:

- 14655 ■ **Grant extensions:** List of HMGP, HMGP Post Fire, BRIC, PDM and FMA awards and period of
 14656 performance deadlines. Date of extension requests, if applicable. All work as part of HMA
 14657 subawards must be completed by the end of the period of performance as described in the
 14658 HMA Guide. All extension requests must be complete, on time and with adequate justification
 14659 as described in guidance.
- 14660 ■ **Recipient progress reports:** Dates progress reports were submitted to FEMA for all HMA
 14661 awards. Documentation of extension approvals, if applicable. All progress reports must be
 14662 complete and submitted on time. Information in the reports must accurately describe grant
 14663 activities, including data related to the completion of individual property acquisitions.
 14664 Incomplete progress reports that do not provide information on all open awards and
 14665 subawards or include all information required by the HMA Guide are not considered on time.
- 14666 ■ **Subaward closeout activities:** Listing of all HMGP, HMGP Post Fire, BRIC, PDM and FMA
 14667 subawards that were closed out by the recipient. Hazard mitigation officer certifies
 14668 subawards were closed out within 90 calendar days from the end of the period of
 14669 performance. Because these data are found in recipient files, FEMA will review findings from
 14670 FEMA monitoring and closeout reports.

- 14671 ○ All subaward closeout activities, including financial reconciliation, are completed within
14672 90 calendar days from the end of the period of performance.
- 14673 ○ Actual expenditures have been documented and are consistent with Standard Form (SF)
14674 424A: *Budget Information for Construction Programs* or SF-424C: *Budget Information for*
14675 *Construction Programs*.⁴⁵⁷
- 14676 ■ **Award closeout:** Dates documents were submitted to FEMA. Period of performance deadlines
14677 for respective HMGP, HMGP Post Fire, BRIC, PDM and FMA awards.⁴⁵⁸
- 14678 ○ Complete SF-425: *Federal Financial Report* and progress reports were submitted within
14679 120 calendar days from the end of the period of performance.
- 14680 ○ Statement submitted that approved scope of work and all EHP requirements have been
14681 satisfied.
- 14682 ○ SF-270: *Request for Advance or Reimbursement* or request to deobligate assistance is
14683 completed, if applicable because of cost underruns.
- 14684 ○ No late drawdowns were requested or performed after the liquidation period ended.

14685 **S.2.4. PAS: FISCAL MANAGEMENT**

14686 **Step 1:** Without prior approval from FEMA, approve post-award budget revisions using assistance
14687 available as a result of cost underruns from other approved subawards. This assistance can be
14688 moved to approved subawards with cost overruns. Assistance can only be used within the same
14689 HMGP or HMGP Post Fire award.

14690 **Step 2:** Prior to approval, determine whether the project meets eligibility requirements, including
14691 cost-effectiveness and cost share. Submit an updated Minimum Eligibility Criteria Checklist or
14692 equivalent documentation and project summary via electronic data systems provided by FEMA.
14693 Update Quarterly Progress Reports accordingly. Recipients may develop and use their own checklists
14694 if approved by FEMA.

14695 **Step 3:** Determine the eligible amount of reimbursement for each subaward claim and process
14696 payment without approval from FEMA.

14697 The following list highlights the data needed to demonstrate past performance of fiscal management
14698 when requesting delegation of fiscal management activities (steps 1, 2 and 3 above) along with the
14699 measurable target(s) associated with each item:

⁴⁵⁷ Forms can be found on the grants.gov [“SF-424 Family”](#) webpage.

⁴⁵⁸ Forms can be found on the grants.gov [“Post-Award Reporting Forms”](#) webpage.

- 14700 ▪ **SF-425 prepared by recipient:** Dates SF-425 was submitted to FEMA. Documentation of
14701 extension approvals, if applicable. All federal financial reports are submitted on time.
14702 Information in reports projects an accurate picture of grant activities.

- 14703 ▪ **Recipient financial management systems:** Narrative describing financial management.
14704 Recipient consistently complies with the financial management standard requirements
14705 described in [2 CFR §§ 200.300-309](#).

- 14706 ▪ **Recipient financial statement audit:** Date of last audit; summary of findings for HMA
14707 programs, if applicable; narrative on how recipient addressed findings, if applicable. No
14708 major findings on last single audit obtained by the recipient related to HMA programs. For
14709 recipients without HMA awards, FEMA will review other federal grants prepared by the
14710 responsible agency (i.e., state, tribal or territorial emergency management agency).

- 14711 ▪ **Closeout activities:** Date closeout documentation was submitted to FEMA. Period of
14712 performance deadline for respective HMA awards.
 - 14713 ○ All award closeout activities, including financial reconciliation are completed within 120
14714 calendar days from the end of the period of performance, including:
 - 14715 – Final SF-425 and Quarterly Progress Reports were submitted within 120 calendar
14716 days from the end date of the period of performance.
 - 14717 – Statement that scope of work(s) has been completed as approved and all EHP
14718 requirements have been satisfied.
 - 14719 – SF-270 (or request to deobligate assistance is completed, if applicable because of
14720 cost underruns) was submitted on time.
 - 14721 – Other documentation as required in the HMA Guide.
 - 14722 – No drawdowns requested or performed after the liquidation period has ended.

S.2.5. PAS: MITIGATION PLANNING (DISASTER AND NON-DISASTER AGREEMENTS)

Step 1: Approve local mitigation plans using the process described below; FEMA will send final approval letters in accordance with the *Local Mitigation Planning Policy Guide*. FEMA will continue to send final approval letters to tribal communities when included in a multi-jurisdictional plan.

A national panel composed of FEMA headquarters and regional mitigation planning staff will review the state’s initial request for delegation of local mitigation plan approval. The following list highlights the data needed to demonstrate past performance of mitigation planning when requesting delegation of mitigation planning activities (step 1 above) along with the measurable target(s) associated with each item:

- 14732
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- **Plans are approvable pending adoption:** List of local mitigation plans submitted to FEMA, noting which plans were approvable pending adoption (no required revisions). All local mitigation plan reviews are approvable pending adoption (no required revisions) following their initial review by FEMA. If fewer than six plans have been submitted within the last four quarters, the six most recent plan reviews will be used to make this determination.
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- **Mitigation planning training:** Staffing organizational chart or listing and a summary listing of staff who have completed training within the past five years as provided by the hazard mitigation officer (or designated representative) or training officer. A summary of staff experience or education can be provided to document equivalent experience. Staff who will be performing or managing local mitigation plan review under the PAS Pilot have completed [E-318/G-318: Local Hazard Mitigation Planning](#), [IS-318: Mitigation Planning for Local and Tribal Communities](#) and [IS-328: Plan Review for Local Mitigation Plans](#), or equivalent approved by the FEMA National Mitigation Planning Program.
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- **Guidance and regulations:** Staffing organizational chart or listing and summary of staff experience as documented by the hazard mitigation officer (or designated representative) or manager of mitigation planning review. States document that staff dedicated to mitigation planning understand and have experience interpreting and implementing mitigation planning guidance and [44 CFR part 201](#) mitigation planning regulations.
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- **Administration of mitigation planning activities:** Mitigation planning regulations include standards for managing states, where mitigation planning regulations refer to the section 404(c) of the Stafford Act for provisions for PAS.⁴⁵⁹ Under this pilot, states will be required to address these standards. Provide narrative as needed.
 - Resources: The state has documented the funding used to develop local mitigation plans, including HMA.⁴⁶⁰
 - Staff: The state has documented the capacity and capability of the mitigation planning staff to adequately provide consistent plan review, satisfactorily determine plans are approved pending adoption and provide technical assistance.
 - Technical assistance and training program: The state has documented the process used to (1) conduct plan review and provide technical assistance and training to local planners and (2) build local mitigation capability.⁴⁶¹
 - Administration: The state has documented how it will conduct local mitigation plan reviews within the 45-day review period and will, whenever possible, provide a copy of
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⁴⁵⁹ [42 U.S.C. § 5170c\(c\)](#)

⁴⁶⁰ [44 CFR § 201.4\(c\)\(4\)](#)

⁴⁶¹ [44 CFR § 201.3\(c\)\(5\)](#)

14764 the plan and a monthly status report to FEMA that includes plan approval status, status
14765 of plan reviews, technical assistance activities and training scheduled.⁴⁶²

14766 **S.2.6. PAS: COMMITMENT TO MITIGATION**

14767 The review of Commitment to Mitigation has two parts. The first part addresses the recipient’s ability
14768 to manage the HMGP, HMGP Post Fire and Mitigation Planning programs. The second part addresses
14769 the recipient’s ability to support mitigation practices and activities statewide.

14770 **S.2.6.1. PAS: Disaster Declaration - Grants Management Experience**

14771 In the request letter, a recipient should provide information to support that they:

- 14772 ▪ Staff HMGP and HMGP Post Fire such that there are in-house or contract staff responsible
14773 for all elements, including delegated activities throughout the HMGP and HMGP Post Fire
14774 award lifecycles.
- 14775 ▪ Manage HMGP and HMGP Post Fire resources so they can conduct the standard and
14776 delegated activities throughout the HMGP and HMGP Post Fire award cycles.
- 14777 ▪ Provide technical assistance to communities and eligible subapplicants such that they are
14778 then able to perform the function for which they requested assistance.
- 14779 ▪ Use an effective management plan to administer HMGP, HMGP Post Fire and Mitigation
14780 Planning such that post-disaster mitigation activities derive from mitigation planning, and
14781 that these activities are executed in a systematic, organized fashion that ensures compliance
14782 with HMGP and HMGP Post Fire requirements and regulations.

14783 **S.2.6.2. PAS: Approval of Local Mitigation Plans - Mitigation Planning Experience to**
14784 **Support HMGP/HMGP Post Fire**

14785 In the request letter, a recipient should provide information to support that they:

- 14786 ▪ Staff the Mitigation Planning program such that there are in-house or contract staff to
14787 adequately provide training, technical assistance, and plan review and approvals.
- 14788 ▪ Manage HMA program resources so they can provide assistance to develop and update local
14789 mitigation plans.
- 14790 ▪ Provide training and technical assistance to communities and eligible subapplicants such
14791 that they are then able to develop an approvable local mitigation plan.

⁴⁶² [44 CFR § 201.6\(d\)\(4\)](#)

- 14792 ▪ Use an effective management plan to administer Mitigation Planning programs to identify
14793 long-term, broadly supported strategies for risk reduction and identify implementation
14794 approaches for future HMGP/HMGP Post Fire awards.

14795 **S.2.6.3. PAS: Mitigation Practices and Activities**

14796 Recipients with an enhanced mitigation plan:

- 14797 ▪ Have an approved enhanced mitigation plan.
- 14798 ▪ Submit the date of the FEMA-approved plan.

14799 Recipients with a mitigation plan:

- 14800 ▪ Provide information that describes an existing comprehensive mitigation program that might
14801 include but is not limited to examples listed in the mitigation planning regulation [44 CFR §](#)
14802 [201.5\(b\)\(4\)](#). A “comprehensive mitigation program” means a broad range of recipient-
14803 supported initiatives and activities that:

- 14804 ○ Target risk reduction for each of the identified hazards in the recipient’s plan.
- 14805 ○ Are inclusive of various governmental agencies and sectors with mitigation capabilities
14806 and resources.
- 14807 ○ Are coordinated to increase the state, tribe or territory’s resilience from the adverse
14808 impacts of future hazard events.

14809 Initiatives and activities that demonstrate commitment include but are not limited to a combination
14810 of current training, partnerships, leadership initiatives, assistance, technical assistance, codes and
14811 ordinances, or other activities that reduce risk.

14812

Part 15. FEMA Contacts

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If requested, the Federal Emergency Management Agency (FEMA) will provide training and technical assistance to both applicants and subapplicants (by way of their applicants) regarding:

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14815

- General questions about FEMA’s programs, including the HMA programs; mitigation planning; and Risk Mapping, Assessment and Planning.

14816

14817

- Feasibility and effectiveness, cost-effectiveness and environmental and historic preservation compliance during the application period.

14818

14819

- The electronic application system processes.

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FEMA encourages applicants and subapplicants (by way of their applicants) to seek technical assistance early in the application period by contacting their appropriate FEMA regional office. [Table 40](#) shows which states and territories each FEMA region serves.

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Table 40: FEMA Regions

FEMA Region	Serving
1	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont
2	New Jersey, New York, Puerto Rico and U.S. Virgin Islands
3	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia and West Virginia
4	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee
5	Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin
6	Arkansas, Louisiana, New Mexico, Oklahoma and Texas
7	Iowa, Kansas, Missouri and Nebraska
8	Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming
9	Arizona, California, Hawaii, Nevada, Guam, American Samoa, Commonwealth of Northern Mariana Islands, Republic of Marshall Islands and Federated States of Micronesia
10	Alaska, Idaho, Oregon and Washington

14824

14825



Contact Information Resources

14826

- FEMA regional offices: <https://www.fema.gov/about/organization/regions>

14827

- State and territorial hazard mitigation officers:

14828

<https://www.fema.gov/grants/mitigation/state-contacts>

14829

- New information regarding external tribal liaisons:

14830

<https://www.fema.gov/about/organization/tribes>

14831 Part 16. Appendices

14832 A. Acronyms

14833	ADA	Americans with Disabilities Act
14834	ASCE	American Society of Civil Engineers
14835	BCA	Benefit-Cost Analysis
14836	BCR	Benefit-Cost Ratio
14837	BRIC	Building Resilient Infrastructure and Communities
14838	CATEX	Categorical Exclusion
14839	CBRA	Coastal Barrier Resources Act
14840	CBRS	Coastal Barrier Resources System
14841	CFR	Code of Federal Regulations
14842	CRS	Community Rating System
14843	DHS	Department of Homeland Security
14844	DOT	Department of Transportation
14845	DRRA	Disaster Recovery Reform Act
14846	EHP	Environmental and Historic Preservation
14847	EO	Executive Order
14848	EPA	U.S. Environmental Protection Agency
14849	FEMA	Federal Emergency Management Agency
14850	FEMA GO	FEMA Grants Outcomes
14851	FIRM	Flood Insurance Rate Map
14852	FMA	Flood Mitigation Assistance
14853	FMAG	Fire Management Assistance Grant

14854	GAO	Government Accountability Office
14855	HHPD	High Hazard Potential Dam
14856	HMA	Hazard Mitigation Assistance
14857	HMA Guide	Hazard Mitigation Assistance Program and Policy Guide
14858	HMGP	Hazard Mitigation Grant Program
14859	HMGP Post Fire	Hazard Mitigation Grant Program Post Fire
14860	IBC	International Building Code
14861	ICC	International Code Council
14862	IEBC	International Existing Building Code
14863	LANDFIRE	Landscape Fire and Resource Management Planning Tools
14864	MCER	Risk-Targeted Maximum Considered Earthquake
14865	MPH	miles per hour
14866	NASA	National Aeronautics and Space Administration
14867	NFIP	National Flood Insurance Program
14868	NFPA	National Fire Protection Association
14869	NRF	National Response Framework
14870	NOAA	National Oceanic and Atmospheric Administration
14871	NOFO	Notice of Funding Opportunity
14872	OCFO	Office of the Chief Financial Officer
14873	OIG	Office of the Inspector General
14874	OMB	Office of Management and Budget
14875	PA	Public Assistance
14876	PARS	Payment and Reporting System
14877	PAS	Program Administration by States

14878	PDM	Pre-Disaster Mitigation
14879	PNP	Private nonprofit
14880	PR&G	Principles, Requirements and Guidelines for Federal Investments in Water
14881		Resources
14882	PUL	Project useful life
14883	Risk MAP	Risk Mapping, Assessment and Planning
14884	RFI	Request for Information
14885	S1	1.0 Second
14886	SBA	Small Business Administration
14887	SEI	Structural Engineering Institute
14888	SF	Standard Form
14889	SFHA	Special Flood Hazard Area
14890	SS	0.2 Second
14891	Stafford Act	Robert T. Stafford Disaster Relief and Emergency Assistance Act
14892	TB	Technical Bulletin
14893	URA	Uniform Relocation Assistance and Real Property Acquisition Policies Act
14894	USACE	U.S. Army Corps of Engineers
14895	U.S.C.	United States Code
14896	USGS	U.S. Geological Survey
14897	WUI	Wildland Urban Interface

14898 B. Glossary

14899 All terms not listed below are used consistent with the term definitions used in Title 44 of the CFR
14900 unless otherwise specified.

14901 **Administrative actions:** Grants management requirements to close out an award or subaward
14902 including conducting final inspections for projects, validating expenditures, resolving negative audit
14903 findings, obtaining and preparing final reports and completing closeout activities.

14904 **Adverse impact/adverse effect:** In general terms related to EHP laws, a negative impact (e.g., loss,
14905 destruction, modification) to an environmental or historic resource that can have a direct, indirect or
14906 cumulative effect on that resource. Impacts or effects may be short-term or long-term in duration.

14907 **Applicant:** The entity, such as a state, federally recognized tribe or territory applying to FEMA for a
14908 federal award that will be accountable for the use of the funds. Once funds are awarded, the
14909 applicant becomes the recipient or pass-through entity or both.

14910 **Approved mitigation plan:** A plan developed to guide mitigation investments and meets the
14911 requirements set forth for state, local or tribal mitigation plans in 44 CFR part 201: *Mitigation*
14912 *Planning*, including formal adoption by the state or governing body, as well as meets requirements
14913 set forth by applicable state, local or tribal mitigation planning policies.

14914 **Approximate Zone A:** An area subject to inundation by the 1-percent annual chance flood event.
14915 Because detailed hydraulic analyses have not been performed, no Base Flood Elevations or flood
14916 depths are shown.

14917 **Authority having jurisdiction:** A term defined used by the Internal Code Council consensus standard
14918 for safe rooms to mean the organization, political subdivision, office or individual charged with the
14919 responsibility for administering and enforcing the provisions of this standard.

14920 **Award:** A grant of financial assistance for a specified purpose by the federal government to an
14921 eligible recipient.

14922 **Base flood:** A flood having a one percent chance of being equaled or exceeded in any given year.

14923 **Base flood elevation:** The elevation shown on the FIRM for Zones AE, AH, A1–A30, AR, AR/A, AR/AE,
14924 AR/A1–A30, AR/AH, AR/AO, V1–V30 and VE that indicates the water surface elevation resulting from
14925 a flood that has a one percent chance of equaling or exceeding that level in any given year.

14926 **Benefit-Cost Analysis (BCA):** A quantitative procedure that assesses the cost-effectiveness of a
14927 hazard mitigation measure by taking a long-term view of avoided future damage compared to the
14928 cost of a project.

14929 **Benefit-Cost Ratio (BCR):** A numerical expression of the cost-effectiveness of a project calculated as
14930 the net present value of total project benefits divided by the net present value of total project costs.

- 14931 **Biomass:** Biological material derived from living or recently living organisms.
- 14932 **Building:** A structure with two or more outside rigid walls and a fully secured roof that is affixed to a
 14933 permanent site; a manufactured home or a mobile home without wheels, built on a chassis and
 14934 affixed to a permanent foundation, that is regulated under the community’s floodplain management
 14935 and building ordinances or laws. “Building” does not mean a gas or liquid storage tank or a
 14936 recreational vehicle, park trailer or other similar vehicle.
- 14937 **Clean-site certification:** A letter from the appropriate federal, state, local, federally recognized tribal
 14938 or territorial entity determining that no further remedial action is required to protect human health or
 14939 the environment.
- 14940 **Coastal Barrier Resources Act (CBRA):** This Act, passed in 1982 and amended in 1990, aims to
 14941 remove the federal incentive to allow for development within coastal barrier areas within the United
 14942 States, Puerto Rico and the U.S. Virgin Islands, as well as preserve the ecological integrity of areas
 14943 that serve as storm buffers. The Act designates Coastal Barrier Resources System units and makes
 14944 these areas ineligible for most federal expenditures and financial assistance, including federal flood
 14945 insurance; the law does provide for funding exceptions within section 6. The law also designates
 14946 Otherwise Protected Areas for which only flood insurance is prohibited.
- 14947 **Coastal Barrier Resources System (CBRS):** A geographic unit designated to serve as a protective
 14948 barrier against forces of wind and tidal action caused by coastal storms and serving as habitat for
 14949 aquatic species. Congress restricted federal spending and assistance for development-related
 14950 activities within CBRS units to protect them from further development. Flood insurance is
 14951 unavailable in these areas unless exceptions of section 6 of CBRA apply. CBRS units are identified
 14952 on FEMA FIRMs.
- 14953 **Coastal High Hazard Area:** An area of special flood hazard extending from offshore to the inland limit
 14954 of a primary frontal dune along an open coast and any other area subject to high-velocity wave action
 14955 from storms or seismic sources.
- 14956 **Combustible material:** Any material that, in the form in which it is used and under the conditions
 14957 anticipated, will ignite and burn or will add appreciable heat to an ambient fire.
- 14958 **Community Rating System (CRS):** A program developed by FEMA to provide incentives for those
 14959 communities in the NFIP that have gone beyond the minimum floodplain management requirements
 14960 to develop extra measures to provide protection from flooding.
- 14961 **Community resilience:** The ability to prepare for anticipated hazards, adapt to changing conditions,
 14962 and withstand and recover rapidly from disruptions. Activities such as disaster preparedness
 14963 (prevention, protection, mitigation, response and recovery) are key steps to resilience.
- 14964 **Cost-effectiveness:** Determined by a systematic quantitative method for comparing the costs of
 14965 alternative means of achieving the same stream of benefits for a given objective. The benefits in the

14966 context of hazard mitigation are avoided future damage and losses. Cost-effectiveness is determined
 14967 by performing a BCA.

14968 **Critical action:** An action for which even a slight chance of flooding is too great. The minimum
 14969 floodplain of concern for critical actions is the 0.2-percent annual chance floodplain (i.e., critical
 14970 action floodplain). Critical actions include but are not limited to those that create or extend the useful
 14971 life of structures or facilities. The following are some examples:

- 14972 ▪ Those which produce, use or store highly volatile, flammable, explosive, toxic or water-
 14973 reactive materials.
- 14974 ▪ Hospitals, nursing homes and housing for the elderly, which are likely to contain occupants
 14975 who may not be sufficiently mobile to avoid the loss of life or injury during flood and storm
 14976 events.
- 14977 ▪ Emergency operation centers or data storage centers, which contain records or services that
 14978 may become lost or inoperative during flood and storm events.
- 14979 ▪ Generating plants and other principal points of utility lines.

14980 **Critical facilities:** Structures and institutions necessary, in the community’s opinion, for response to
 14981 and recovery from emergencies. Critical facilities must continue to operate during and following a
 14982 disaster to reduce the severity of impacts and accelerate recovery. These would include, but not be
 14983 limited to:

- 14984 ▪ Structures or facilities that produce, use or store highly volatile, flammable, explosive, toxic
 14985 and/or chemically reactive materials.
- 14986 ▪ Hospitals, nursing homes and housing likely to have occupants who may not be sufficiently
 14987 mobile to avoid injury or death during an emergency.
- 14988 ▪ Police stations, fire stations, vehicle and equipment storage facilities, and emergency
 14989 operations centers that are needed for emergency response activities before, during and
 14990 after the event.
- 14991 ▪ Public and private utility facilities vital to maintaining or restoring normal services to affected
 14992 areas before, during and after the event.
- 14993 ▪ Other structures or facilities the community identifies as meeting the general criteria above.

14994 This definition is for HMA program use and clarification and is not meant to provide a definition for
 14995 use under other programs or supersede any FEMA regulation.

14996 **Defensible space:** An area that is either natural or manmade, where material capable of allowing a
 14997 fire to spread unchecked has been treated, cleared or modified to slow the rate and intensity of an
 14998 advancing wildfire and to create an area for fire suppression operations to occur.

14999 **Direct costs:** Costs that can be identified specifically with a particular final cost objective, such as a
15000 federal award or cost that can be linked to a specific project.

15001 **Disabilities:** Circumstances that are met for providing physical, programmatic and effective
15002 communication access to the whole community by accommodating individual requirements through
15003 accessibility and/or specific modifications. Disabilities include assistance, accommodation or
15004 modification for mobility, communication, transportation, safety and health maintenance; and
15005 assistance, accommodation or modification because of any situation (temporary or permanent) that
15006 limits an individual's ability to act in an emergency.

15007 **Discount rate:** The interest rate used in calculating the present value of expected yearly benefits and
15008 costs. For FEMA-funded projects, the rate is set by Office of Management and Budget.

15009 **Dwelling:** A building designed for use as a residence for no more than four families or a single-family
15010 unit in a building under a condominium form of ownership.

15011 **Elevated building:** A building that has no basement and the lowest floor is elevated to or above the
15012 Base Flood Elevation by foundation walls, shear walls, posts, piers, pilings or columns. Solid
15013 perimeter foundations walls are not an acceptable means of elevating buildings in Zones V and VE.

15014 **Environmental benefits:** Direct or indirect contributions that ecosystems make to the environment
15015 and human populations. For FEMA BCA, certain types of environmental benefits may be realized
15016 when homes are removed and land is returned to open space uses. Benefits may include flood
15017 hazard reduction; an increase in recreation and tourism; enhanced aesthetic value; and improved
15018 erosion control, air quality and water filtration.

15019 **Equipment:** Tangible personal property (including information technology systems) having a useful
15020 life of more than one year and a per-unit acquisition cost that equals or exceeds the lesser of the
15021 capitalization level established by the non-federal entity for financial statement purposes or
15022 \$5,000.⁴⁶³

15023 **Executive authorized signature authority:** The individual, designated by the governor or tribal chief
15024 executive, who serves as the grant administrator for all the funds provided under BRIC and FMA; the
15025 person empowered by the governor or tribal chief executive to execute, on behalf of the state or
15026 tribe, all necessary documents for assistance.

15027 **Federal agency:** Any department, independent establishment, government corporation or other
15028 agency of the executive branch of the federal government, including the U.S. Postal Service but not
15029 the American National Red Cross.

15030 **Federal award:** The federal financial assistance that a recipient receives directly from FEMA or
15031 indirectly from a pass-through entity or the instrument such as the FEMA-State Agreement,

⁴⁶³ [2 CFR § 200.1](#)

- 15032 cooperative agreement or other agreement setting forth the terms and conditions of the financial
15033 assistance.
- 15034 **Federal awarding agency:** The federal agency that provides a federal award directly to a non-federal
15035 entity.
- 15036 **Federal award date:** The date when the federal award is signed by the authorized official of the
15037 federal awarding agency.
- 15038 **Federally recognized tribal government:**⁴⁶⁴ The governing body of any Indian or Alaska Native tribe,
15039 band, nation, pueblo, village or community that the Secretary of the Interior acknowledges to exist as
15040 an Indian tribe under the Federally Recognized Indian Tribe List Act of 1994.⁴⁶⁵ This does not include
15041 Alaska Native corporations, the ownership of which is vested in private individuals. Also known as
15042 Indian Tribal Government.
- 15043 **Final expenditure report:** A complete and accurate report the recipient submits to FEMA for a
15044 subaward, certifying that the award terms and conditions have been met and project costs are
15045 reconciled.
- 15046 **Firebreak:** A strip of cleared land that provides a gap in vegetation or other combustible material that
15047 is expected to slow or stop the progress of a wildfire.
- 15048 **Fireproofing:** Removal or treatment of fuels to reduce the danger of fires igniting or spreading (e.g.,
15049 fireproofing roadsides, campsites, structural timber).
- 15050 **Fire-resistant material:** Material that has a property that prevents or retards the passage of excessive
15051 heat, hot gases or flames under conditions of use.
- 15052 **Fire retardant:** A chemical applied to lumber or other wood products to slow combustion and flame
15053 spread.
- 15054 **Fire severity zone:** Three concentric zones around a building used to determine the most effective
15055 design for defensible space.
- 15056 **Flammability:** The relative ease with which fuels ignite and burn regardless of the quantity of the
15057 fuels.
- 15058 **Flood Insurance Rate Map (FIRM):** Official map of a community on which FEMA has delineated both
15059 the special hazard areas and the risk premium zones applicable to the community.

⁴⁶⁴ Section 102(6) of the Stafford Act ([42 U.S.C. § 5122\(6\)](#)); [44 CFR § 201.2](#); [44 CFR § 206.431](#); [44 CFR § 77.2\(f\)](#).

⁴⁶⁵ Public Law 103-454 (November 2, 1994), [25 U.S.C. § 5130](#).

- 15060 **Floodplain:** Any land area that FEMA has determined has at least a one percent chance in any given
15061 year of being inundated by floodwaters from any source.
- 15062 **Floodplain management:** The operation of an overall program of corrective and preventive measures
15063 for reducing flood damage, including but not limited to, emergency preparedness plans, flood risk
15064 reduction works and floodplain management regulations.
- 15065 **Floodway:** The channel of a river or other watercourse and the adjacent land areas that must be
15066 reserved to discharge the base flood without cumulatively increasing the water surface elevation
15067 more than a designated height. Communities regulate development in these floodways to ensure
15068 there are no increases in upstream flood elevations.
- 15069 **Freeboard:** A factor of safety usually expressed in feet above a flood level for purposes of floodplain
15070 management. “Freeboard” tends to compensate for the many unknown factors that could contribute
15071 to flood heights greater than the height calculated for a selected size flood and floodway conditions,
15072 such as wave action, bridge openings and the hydrological effect of urbanization of the watershed.
- 15073 **Fuel break:** A natural or manmade change in fuel characteristics that affects fire behavior so that
15074 fires burning into them can be more readily controlled.
- 15075 **Fuel condition:** Relative flammability of fuel as determined by fuel type and environmental
15076 conditions.
- 15077 **Governor’s authorized representative:** The individual, designated by the governor, who serves as the
15078 grant administrator for all funds provided under HMGP; the person empowered by the governor to
15079 execute, on behalf of the state, all necessary documents for disaster assistance.
- 15080 **Green infrastructure:** A subset of nature-based solutions, which consists of a sustainable approach
15081 to natural landscape preservation and stormwater management that can be used for hazard
15082 mitigation activities as well as provide additional ecosystem service benefits. Green infrastructure
15083 methods use an ecosystem-based approach to replicate a site’s predevelopment condition and
15084 function.
- 15085 **Green open space:** Green open space is land that does not directly touch a natural body of water,
15086 such as a river, lake, stream, creek or coastal body of water.
- 15087 **Gray infrastructure:** Human-made structures that are engineered to provide a specific level of service
15088 under specific scenarios and generally addresses a single purpose. Gray infrastructure is also known
15089 as traditional infrastructure.
- 15090 **Hazard mitigation officer:** The representative of a state, tribal or territorial government who is the
15091 primary point of contact with FEMA, other federal agencies and local units of government in the
15092 planning and implementation of pre- and post-disaster mitigation activities.

15093 **Hazard mitigation planning:** A process used by governments to identify risks, assess vulnerabilities
15094 and develop long-term strategies for protecting people and property from the effects of future natural
15095 hazard events.

15096 **Hazardous fuels reduction:** An activity in an area strategically located in relation to predicted fire
15097 hazard and occurrence for which the vegetation has been permanently modified or replaced so that
15098 fires burning into it can be more easily controlled (e.g., vegetation management activities).

15099 **HMGP lock-in/ceiling:** The maximum amount of HMGP funding available to a recipient for a particular
15100 major disaster declaration.

15101 **Identified for further review:** Subapplications identified for further review contain sufficient
15102 information for a preliminary determination of cost-effectiveness and feasibility. In certain instances,
15103 FEMA may work with applicants to confirm cost-effectiveness and feasibility. Identification for further
15104 review is not a notification of award.

15105 **Ignition-resistant construction:** Construction standards based on use of fire-resistant materials,
15106 noncombustible materials and one-hour fire-rated assemblies.

15107 **Increased Cost of Compliance:** Coverage for expenses a property owner must incur, above and
15108 beyond the cost to repair the physical damage the structure actually sustained from a flooding event,
15109 to comply with mitigation requirements of state or local floodplain management ordinances or laws;
15110 acceptable mitigation measures are structure elevation, dry floodproofing, structure relocation,
15111 structure demolition or any combination thereof.

15112 **Indian Tribal Government:** See “Federally recognized tribal government” above.

15113 **Indirect cost:** Costs incurred for a common or joint purpose benefitting more than one cost objective
15114 and not readily assignable to the cost objectives specifically benefited without effort disproportionate
15115 to the results achieved.

15116 **Indirect cost rate:** Percentage established by a federal department or agency for a non-federal entity
15117 to use in computing the dollar amount it charges to the award to reimburse itself for indirect costs
15118 incurred in doing the work of the award activity

15119 **Local government:** Any county, municipality, city, town, township, public authority, school district,
15120 special district, intrastate district, council of governments (regardless of whether the council of
15121 governments is incorporated as a nonprofit corporation under state law), regional or interstate
15122 government entity, or agency or instrumentality of a local government; any tribe or authorized tribal
15123 organization, or Alaska Native village or organization that is not a federally recognized tribe; and any
15124 rural community, unincorporated town or village, or other public entity.

15125 **Major disaster declaration:** Any natural catastrophe (including any hurricane, tornado, storm, high
15126 water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide,
15127 snowstorm or drought) or, regardless of cause, any fire, flood or explosion, in any part of the United

15128 States that, in the determination of the President, causes damage of sufficient severity and
15129 magnitude to warrant disaster assistance under the Stafford Act to supplement the efforts and
15130 available resources of states, local governments and disaster relief organizations in alleviating the
15131 damage, loss, hardship or suffering caused thereby.

15132 **Management costs:** Any indirect costs, any direct administrative costs, and any other administrative
15133 expense associated with a specific project under a major disaster, emergency, disaster
15134 preparedness or mitigation activity or measure. For HMGP, management cost funding is provided
15135 outside of federal assistance limits defined at [44 CFR § 206.432\(b\)](#).

15136 **Manufactured (mobile) home:** A structure, transportable in one or more sections, that is built on a
15137 permanent chassis and designed for use with or without a permanent foundation when attached to
15138 the required utilities.

15139 **Market value:** The amount in cash, or on terms reasonably equivalent to cash, for which in all
15140 probability the property would have sold on the effective date of the valuation, after a reasonable
15141 exposure time on the open competitive market, from a willing and reasonably knowledgeable seller
15142 to a willing and reasonably knowledgeable buyer, with neither acting under any compulsion to buy or
15143 sell, giving due consideration to all available economic uses of the property at the time of the
15144 valuation.

15145 **Mitigation:** Any sustained action taken to reduce or eliminate long-term risk to life and property from
15146 a hazard event.

15147 **Mitigation activity:** A mitigation measure, project, plan or action proposed to reduce risk of future
15148 damage, hardship, loss or suffering from disasters. The term “measure” is used interchangeably with
15149 the term “project” in this program.

15150 **National Flood Insurance Program (NFIP):** Federal program that provides the availability of flood
15151 insurance in exchange for the adoption of a minimum local floodplain management ordinance that
15152 regulates new and substantially improved development in identified flood hazard areas.

15153 **National Mitigation Investment Strategy:** A product the Mitigation Framework Leadership Group
15154 developed upon the recommendation of the Government Accountability Office in GAO-15-515:
15155 *Hurricane Sandy: An Investment Strategy Could Help the Federal Government Enhance National*
15156 *Resilience for Future Disasters* (July 2015). It was published in the summer of 2019. The goal of the
15157 Investment Strategy is to identify, prioritize and guide investments in pre- and post-disaster
15158 resilience and hazard mitigation-related activities. The Investment Strategy is risk-informed;
15159 grounded in data; and incorporates state, local, tribal, territorial and private-sector perspectives.

15160 **Noncombustible material:** Material of which no part will ignite and burn when subjected to fire, such
15161 as any material conforming to ASTM International Standard E136: *Standard Test Method for*
15162 *Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750°C*.

15163 **Non-federal cost share:** The portion of the costs of a federally assisted project or program not borne
15164 by the federal government.

15165 **Non-federal entity:** A state government, local government, federally recognized tribe or private
15166 nonprofit organization that carries out a federal award as a recipient or subrecipient (or a grantee or
15167 subgrantee as referenced in the previous versions of the guidance).

15168 **Nonflammable:** Material unlikely to burn when exposed to flame under most conditions.

15169 **Non-federal funds:** Financial resources provided by sources other than the federal government. The
15170 term does not include funds provided to a state or local government through a federal grant unless
15171 the authorizing statute for that grant explicitly allows the funds to be used as cost share for other
15172 federal grants.

15173 **Nonresidential structure:** Includes but is not limited to small business concerns, places of worship,
15174 schools, farm buildings (including grain bins and silos), pool houses, clubhouses, recreational
15175 buildings, mercantile structures, agricultural and industrial structures, warehouses, hotels and
15176 motels with normal room rentals for less than six months' duration, and nursing homes.

15177 **Notice of Funding Opportunity (NOFO):** A formal announcement of the availability of federal funding
15178 through a financial assistance program from a federal awarding agency. The NOFO provides
15179 information on the award, who is eligible to apply, the evaluation criteria for selection of an awardee,
15180 required components of an application and how to submit the application.

15181 **Obligation:** A legal commitment by FEMA to pay amounts in accordance with the grant agreement.

15182 **Office of Environmental Planning and Historic Preservation:** A FEMA office that integrates the
15183 protection and enhancement of environmental, historic and cultural resources into the FEMA mission
15184 and FEMA programs and activities; ensures FEMA activities and programs related to disaster
15185 response and recovery, hazard mitigation and emergency preparedness comply with federal EHP
15186 laws and executive orders; and provides EHP technical assistance to FEMA staff; federal, state and
15187 local partners; and recipients and subrecipients.

15188 **Otherwise Protected Areas:** Designation created by the Coastal Barrier Improvement Act of 1990.⁴⁶⁶
15189 Flood insurance is restricted in Otherwise Protected Areas even though they are not in the CBRS and
15190 may receive other forms of federal assistance. Otherwise Protected Areas are identified on FEMA
15191 FIRMs.

15192 **Pass-through entity:** A non-federal entity that provides a subaward to a subrecipient to carry out part
15193 of a federal program.

⁴⁶⁶ Public Law 101-591 (November 16, 1990)

15194 **Period of performance:** According to 2 CFR § 200.1, period of performance means the total
15195 estimated time interval between the start of an initial federal award and the planned end date, which
15196 may include one or more funded portions, or budget periods. For HMA programs, the period of
15197 performance is the time during which the non-federal entity may incur new obligations to carry out
15198 the work authorized under the federal award. According to 2 CFR § 200.211, the federal awarding
15199 agency must include start and end dates of the period of performance in the federal award.
15200 According to 2 CFR § 200.332, the pass-through entity must include start and end dates of the
15201 period of performance in the subaward.

15202 **Pile burning:** Piling removed vegetation into manageable piles and burning the individual piles during
15203 safe and approved burning conditions.

15204 **Post-Flood Insurance Rate Map Building:** A building for which construction or substantial
15205 improvement occurred after December 31, 1974, or on or after the effective date of an initial FIRM,
15206 whichever is later.

15207 **Practicable:** An action that is capable of being done within existing constraints. The test of what is
15208 practicable depends upon the situation and includes consideration of all pertinent factors, such as
15209 environment, cost and technology.

15210 **Pre-Flood Insurance Rate Map Building:** A building for which construction or substantial improvement
15211 occurred on or before December 31, 1974, or before the effective date of an initial FIRM.

15212 **Prescribed burning:** The deliberate and managed use of fire ignited by management actions to meet
15213 specific fuels management objectives.

15214 **Private nonprofit (PNP):** An eligible PNP is any private nonprofit educational, utility, emergency,
15215 medical, or custodial care facility, including a facility for older adults and people with disabilities, any
15216 other facility providing essential governmental services to the general public, and such facilities on
15217 Indian reservations. For further information see [44 CFR § 206.221\(e\)](#) and [44 CFR § 206.434\(a\)\(2\)](#).

15218 **Project:** Any mitigation measure or action proposed to reduce risk of future damage, hardship, loss or
15219 suffering from disasters.

15220 **Public Assistance (PA):** Supplementary federal assistance provided under the Stafford Act to state
15221 and local governments or certain PNP organizations other than assistance for the direct benefit of
15222 individuals and families.⁴⁶⁷ Fire Management Assistance Grants under section 420 of the Stafford
15223 Act are also considered PA.⁴⁶⁸

⁴⁶⁷ [44 CFR part 206, subpart G](#) and [44 CFR part 206, subpart H](#)

⁴⁶⁸ [42 U.S.C. § 5187](#)

- 15224 **Recipient:** A non-federal entity that receives a federal award directly from a federal awarding agency
15225 to carry out an activity under a federal program. The term recipient does not include subrecipients.
- 15226 **Replacement cost value:** The cost to replace property with materials of like kind and quality, without
15227 any deduction for depreciation.
- 15228 **Resilience:** The ability to prepare for anticipated hazards, adapt to changing conditions, and
15229 withstand and recover rapidly from disruptions.
- 15230 **Required work:** Activities to complete the approved scope of work.
- 15231 **Riparian area:** The land that directly abuts a natural body of water, such as a river, lake, stream,
15232 creek or coastal body of water.
- 15233 **Slash:** The accumulation of vegetative materials such as tops, limbs, branches, brush and
15234 miscellaneous residue results from forest management activities such as thinning, pruning, timber
15235 harvesting and wildfire hazard mitigation.
- 15236 **Special Flood Hazard Area (SFHA):** The land in the floodplain within a community subject to a one
15237 percent or greater chance of flooding in any given year. An area having special flood, mudflow or
15238 flood-related erosion hazards. Shown on a Flood Hazard Boundary Map or a FIRM as Zone A, AO, A1–
15239 A30, AE, A99, AH, AR, AR/A, AR/AE, AR/AH, AR/AO, AR/A1–A30, V1–V30, VE or V.
- 15240 **Structural fire protection:** The protection of homes or other buildings from wildland fire.
- 15241 **Subapplicant:** The entity, such as a community/local government, federally recognized tribe, or PNP
15242 that submits a subapplication to the applicant for FEMA assistance. Once funding is awarded, the
15243 subapplicant becomes the “subrecipient.”
- 15244 **Subaward:** An award provided by a pass-through entity to a subrecipient for the subrecipient to carry
15245 out part of a federal award received by the pass-through entity. It does not include payments to a
15246 contractor or payments to an individual that is a beneficiary of a federal program. A subaward may
15247 be provided through any form of legal agreement, including an agreement that the pass-through
15248 entity considers a contract.
- 15249 **Subrecipient:** A non-federal entity that receives a subaward from a pass-through entity to carry out
15250 part of a federal program but does not include an individual that is a beneficiary of such program. A
15251 subrecipient may also be a recipient of other federal awards directly from a federal awarding agency.
- 15252 **Subrecipient authorized representative:** The individual who serves as the grant administrator for all
15253 funds provided under the HMA programs to execute all necessary documents for assistance on
15254 behalf of the subapplicant/subrecipient.

15255 **Substantial damage:** Damage of any origin sustained by a building whereby the cost of restoring the
15256 building to its before-damaged condition would equal or exceed 50 percent of the market value of
15257 the building before the damage occurred.

15258 **Substantial improvement:** Any reconstruction, rehabilitation, addition or other improvement of a
15259 structure, the cost of which equals or exceeds 50 percent of the market value of the structure before
15260 the “start of construction” of the improvement. This term includes structures that have incurred
15261 “substantial damage,” regardless of the actual repair work performed.

15262 **Termination:** The ending of a federal award, in whole or in part, at any time prior to the planned end
15263 of a period of performance. A lack of available funds is not a termination.⁴⁶⁹

15264 **Tribal authorized representative:** The individual, designated by the tribal chief executive, who serves
15265 as the grant administrator for all funds provided under HMGP; the person empowered by the tribal
15266 chief executive to execute, on behalf of the tribe, all necessary documents for disaster assistance.

15267 **Tribal chief executive:** The person who is the chief, chairman, governor, president, or similar
15268 executive official of an Indian tribal government.⁴⁷⁰

15269 **Void:** A subaward for which no federal funds have been allocated or obligated and the recipient no
15270 longer wishes to complete the activity. No final claim letter will be sent to the recipient once the
15271 subaward is void and closed.

15272 **Whole community:** The National Mitigation Framework addresses individuals, nonprofit entities and
15273 nongovernmental organizations, the private sector, communities, critical infrastructure interests,
15274 governments, and the nation as a whole. Engaging the whole community is critical to success, and
15275 individual and community preparedness is a key component. The whole community includes
15276 children; individuals with disabilities and others with disabilities; those from religious, racial and
15277 ethnically diverse backgrounds; and people with limited English proficiency. Their contributions must
15278 be integrated into mitigation/resilience efforts, and their needs must be incorporated as the whole
15279 community plans and executes its core capabilities.

15280 **Wildfire:** An uncontrolled fire spreading through vegetative fuels, exposing and possibly consuming
15281 structures.

15282 **Wildland urban interface:** The zone of transition between unoccupied land and human development.
15283 It is the line, area or zone where structures and other human development meet or intermingle with
15284 undeveloped wildland or vegetative fuels.

15285 **Withdrawn subaward:** A subaward for which federal funds have been allocated and obligated, but the
15286 recipient no longer wishes to complete the activity. A final claim letter will be sent to the recipient

⁴⁶⁹ [2 CFR § 200.1](#)

⁴⁷⁰ [42 U.S.C. § 5122\(12\)](#)

15287 once the subaward is withdrawn and closed. Remaining funding must be deobligated from the
15288 subaward.

15289 C. Authorizing Statutes and Regulations

15290 Mitigation activities must adhere to all relevant statutes, regulations and requirements, including:

15291 ▪ **Statutes:**

- 15292 ○ HMGP and HMGP Post Fire: Section 404 of the Robert T. Stafford Disaster Relief and
15293 Emergency Assistance Act (Stafford Act), Public Law 100-707 (November 23, 1988), as
15294 amended, 42 U.S.C. § 5170c.
- 15295 ○ BRIC: Section 203 of the Stafford Act, 42 U.S.C. § 5133.
- 15296 ○ FMA: Sections 1366 and 1367 of the National Flood Insurance Act of 1968, Public Law.
15297 90-448 (August 1, 1968), as amended, 42 U.S.C. § 4104c, 42 U.S.C. § 4104d.
- 15298 ○ Mitigation Planning: Section 322 of the Stafford Act, 42 U.S.C. § 5165.
- 15299 ○ Management Costs: Section 324 of the Stafford Act, 42 U.S.C. § 5165b.
- 15300 ○ Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public
15301 Law 91-646 (January 2, 1971), as amended, 42 U.S.C. Chapter 61.
- 15302 ○ American Indian Religious Freedom Act of 1978, Public Law 95-341 (August 11, 1978),
15303 42 U.S.C. § 1996.
- 15304 ○ Archeological and Historic Preservation Act of 1974, Public Law 93-291 (May 24, 1974),
15305 16 U.S.C. §§ 469-469c.
- 15306 ○ Archeological Resources Protection Act of 1979, Public Law 96-95 (October 31, 1979),
15307 16 U.S.C. §§ 470aa-mm.
- 15308 ○ Clean Air Act Amendments of 1990, Public Law 101-549 (November 15, 1990), 42
15309 U.S.C. Chapter 85.
- 15310 ○ Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500 (October 18,
15311 1972), 33 U.S.C. § 1251 et seq.
- 15312 ○ Sections 10 and 14 of the Rivers & Harbors Appropriation Act of 1899; Chapter 425, 30
15313 Stat. 1151 (March 3, 1899), 33 U.S.C. § 403 and 33 U.S.C. § 408, respectively.
- 15314 ○ Coastal Zone Management Act of 1972, Public Law 92-583 (October 27, 1972), 16
15315 U.S.C. § 1451 et seq.
- 15316 ○ Coastal Barrier Resources Act of 1982, Public Law 97-348 (October 18, 1982), 16 U.S.C.
15317 §§ 3501-3510.

- 15318 ○ Endangered Species Act of 1973, Public Law 93–205 (December 27, 1973), 16 U.S.C. §
15319 1351 et seq.
- 15320 ○ Farmland Protection Policy Act, Subtitle I of Title XV, section 1539-1549 of the
15321 Agriculture and Food Act of 1981, Public Law 97-98 (December 22, 1981), 7 U.S.C.
15322 Chapter 73.
- 15323 ○ Fish and Wildlife Conservation Act, Public Law 96-366 (September 29, 1980), 16 U.S.C.
15324 § 2901.
- 15325 ○ National Environmental Policy Act, Public Law 91-190 (January 1, 1970), 42 U.S.C. §
15326 4321.
- 15327 ○ National Historic Preservation Act, Public Law 89-665 (October 15, 1966), 16 U.S.C. §
15328 470.
- 15329 ○ Native American Graves and Repatriation Act of 1990, Public Law 101-601, (November
15330 16, 1990), 25 U.S.C. §§ 3001-3013.
- 15331 ○ Resource Conservation and Recovery Act, Public Law 94-580 (October 21, 1976), 42
15332 U.S.C. § 6901 et seq.
- 15333 ○ Wild and Scenic Rivers Act of 1968, Public Law 90-542 (October 2, 1968), 16 U.S.C. §
15334 1271 et seq.
- 15335 ○ Wilderness Act of 1964, Public Law 88–577 (September 3, 1964), 16. U.S.C. §§ 1131-
15336 1136.
- 15337 ■ **Regulations and other governing documents:**
- 15338 ○ [2 CFR part 200](#): *Uniform Administrative Requirements, Cost Principles, and Audit*
15339 *Requirements for Federal Awards* (as adopted by DHS at 2 CFR part 3002).
- 15340 ○ [36 CFR part 800](#): *Protection of Historic Properties*.
- 15341 ○ [44 CFR part 9](#): *Floodplain Management and Protection of Wetlands*.
- 15342 ○ [44 CFR part 25](#): *Uniform Relocation Assistance and Real Property Acquisition for Federal*
15343 *and Federally Assisted Programs*.
- 15344 ○ [44 CFR part 60](#): *Criteria for Land Management and Use*.
- 15345 ○ [44 CFR part 77](#): *Flood Mitigation Grants*.
- 15346 ○ [44 CFR part 80](#): *Property Acquisition and Relocation for Open Space*.

- 15347 ○ [44 CFR part 201](#): *Mitigation Planning*.
- 15348 ○ [44 CFR part 206, subpart J](#): *Coastal Barrier Resources Act*.
- 15349 ○ [44 CFR part 206, subpart N](#): *Hazard Mitigation Grant Program*.
- 15350 ○ [Federal Acquisition Regulation subpart 31.2](#): *Contracts with Commercial Organizations*.
- 15351 ■ **Executive Orders:**
- 15352 ○ [Executive Order 11988](#): *Floodplain Management* (May 24, 1977).
- 15353 ○ [Executive Order 11990](#): *Protection of Wetlands* (May 24, 1977).
- 15354 ○ [Executive Order 12898](#): *Federal Actions to Address Environmental Justice in Minority*
15355 *Populations and Low-Income Populations* (February 11, 1994).
- 15356 ○ [Executive Order 13007](#): *Indian Sacred Sites* (May 24, 1996).
- 15357 ○ [Executive Order 13690](#): *Establishing a Federal Flood Risk Management Standard and a*
15358 *Process for Further Soliciting and Considering Stakeholder Input* (January 30, 2015).
- 15359 ○ [Executive Order 13985](#): *Advancing Racial Equity and Support for Underserved*
15360 *Communities Through the Federal Government* (January 20, 2021).
- 15361 ○ [Executive Order 13990](#): *Protecting Public Health and the Environment and Restoring*
15362 *Science to Tackle the Climate Crisis* (January 20, 2021).
- 15363 ○ [Executive Order 14008](#): *Tackling the Climate Crisis at Home and Abroad* (January 27,
15364 2021).
- 15365 ○ [Executive Order 14030](#): *Climate-Related Financial Risk* (May 20, 2021)
- 15366 ■ [FEMA Directive 108-1](#): *Environmental Planning and Historic Preservation Responsibilities*
15367 *and Program Requirements* (October 10, 2018).
- 15368 ■ [OMB Circular A-94](#), *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal*
15369 *Programs*.
- 15370 ■ Other applicable federal, state, local, tribal and territory laws; implementing regulations; and
15371 executive orders.
- 15372 **Federal Laws Prohibiting Discrimination in Emergency Programs Based on Disability:**
- 15373 ■ Rehabilitation Act of 1973, Public Law 93-112 (September 26, 1973).
- 15374 ■ Americans with Disabilities Act of 1990, Public Law 101-336 (July 26, 1990).

- 15375 ▪ The Stafford Act.
- 15376 ▪ Post-Katrina Emergency Management Reform Act of 2006, Public Law 109-295 (October 4,
15377 2006).
- 15378 ▪ Fair Housing Act Amendments of 1988, Public Law 100-430 (September 13, 1988).
- 15379 ▪ Architectural Barriers Act of 1968, Public Law 90-480 (August 12, 1968).
- 15380 ▪ Individuals with Disabilities Education Act of 1975, Public Law 101-476 (October 30, 1990).
- 15381 ▪ Telecommunications Act of 1996, Public Law 104-104 (February 8, 1996).
- 15382 ▪ Twenty-First Century Communications and Video Accessibility Act of 2010, Public Law 111-
15383 260 (October 8, 2010).

15384 D. HMGP Project Subapplication Minimum Eligibility 15385 Criteria Checklist

15386 The purpose of the HMGP Project Subapplication Minimum Eligibility Criteria Checklist is to ensure
15387 that applications/subapplications submitted to FEMA contain the minimum criteria for eligibility. For
15388 additional project types not listed below, see [Part 11](#) (other than mitigation planning and planning-
15389 related activities) and [Part 12](#). For mitigation planning activities, see Appendix E. HMGP Planning
15390 Subapplication Minimum Eligibility Criteria Checklist.

15391 If an application/subapplication lacks the necessary eligibility information, FEMA cannot determine
15392 eligibility and approve an application. If information is lacking, FEMA may request additional
15393 information during the review process. Each requirement lists the section of the HMA Guide where
15394 more information can be found.

15395 D.1. General Requirements

- 15396 ▪ Is necessary documentation included in the subapplication? ([Part 6.B.3 Application](#)
15397 [Documentation and Assurance Forms](#))
- 15398 ▪ Is this a phased project? ([Part 4.D.3 Management Costs](#))
- 15399 ▪ Is technical assistance needed? The subapplicant is encouraged to contact the applicant to
15400 request application development assistance. FEMA resources may be available but will only
15401 be provided if requested by the applicant. ([Part 4.D.1.4. Technical Assistance \(Financial and](#)
15402 [Nonfinancial\)](#))

15403 D.2. Applicants and Subapplicants

- 15404 ▪ Is an eligible applicant identified? (states, federally recognized tribal governments and
15405 territories) ([Part 4.A. Eligible Applicants](#))
- 15406 ▪ Is an eligible subapplicant identified? (state agencies, local governments, federally
15407 recognized tribal governments and private nonprofit organizations) ([Part 4.B. Eligible](#)
15408 [Subapplicants](#))
- 15409 ▪ If applicable, does the applicant/subapplicant participate in the National Flood Insurance
15410 Program? ([Part 4.H. National Flood Insurance Program Eligibility Requirements](#))

15411 D.3. Hazard Mitigation Plan Update Requirements

- 15412 ▪ Does the applicant/subapplicant have a hazard mitigation plan? ([Part 4.C. Hazard Mitigation](#)
15413 [Plan Requirements](#))
- 15414 ▪ Is the proposed HMA project(s) in conformance with the State Mitigation Plan and Local or
15415 Tribal Mitigation Plan approved under 44 CFR part 201? ([Part 4.C.2.2. Consistency with](#)

15416 [Hazard Mitigation Plans](#) and [Part 6.C. Scoping Narrative: Scope of Work, Schedule and](#)
 15417 [Budget](#))

15418 **D.4. Scope of Work Requirements**

15419 ▪ Does the scope of work describe the proposed activity, and is it an eligible project type? ([Part](#)
 15420 [6.C.1. Scope of Work](#))

15421 ▪ For construction projects, have alternatives been considered as part of the decision-making
 15422 process and are they described? ([Part 6.C.1.2. Activities Description](#))

15423 ▪ Are photographs of each structure and the general project area included? ([Part 6.F.1. EHP](#)
 15424 [Checklist](#))

15425 ▪ Is geographic information about the activity being scoped (and clearly labeled maps)
 15426 included? ([Part 6.F. Environmental and Historic Preservation Documentation](#) and [Part](#)
 15427 [6.C.1.2. Activities Description](#))

15428 ▪ Is the latitude, longitude and address for each structure provided? ([Part 6.C.1.2. Activities](#)
 15429 [Description](#))

15430 ▪ Does the scope of work explain why the selected activity is the most practical, effective and
 15431 environmentally sound option? ([Part 6.C.1.2. Activities Description](#))

15432 ▪ Have long-term changes to the area been considered and has documentation regarding long-
 15433 term maintenance been provided? ([Part 6.C.1.2. Activities Description](#))

15434 ▪ Does the activity solve a problem independently or does it constitute a functional portion of a
 15435 solution? ([Part 4.D.2. Mitigation Projects](#) and [Part 4.G. Environmental and Historic](#)
 15436 [Preservation Requirements](#))

15437 ▪ Does the activity address a repetitive problem or significant risk to the public health?⁴⁷¹

15438 **D.5. Schedule Requirements**

15439 ▪ Does the schedule identify major milestones that reflect the scope of work and that do not
 15440 exceed the period of performance of the award? ([Part 6.C.2. Schedule](#))

15441 **D.6. Budget Requirements**

15442 ▪ Has a budget and a budget narrative been provided that supports the scope of work? ([Part](#)
 15443 [6.C.3. Budget](#))

⁴⁷¹ [44 CFR § 206.434\(c\)\(5\)\(i\).](#)

15444 ▪ If the project requires phased or incremental funding, does the budget reflect the amount
15445 estimated for each funding increment? ([Part 6.C.3.1. Budget Documentation](#))

15446 ▪ Have the non-federal cost share and match sources been identified? ([Part 6.B.3. Application](#)
15447 [Documentation and Assurance Forms](#) and [Part 6.C.3. Budget](#))

15448 ▪ Does the project report the availability or receipt of duplicative grants, loans, insurance
15449 payments, legal claims, gifts or other payments pertaining to the property being mitigated
15450 using HMA (potential duplication of benefits such as insurance and Small Business
15451 Administration loans if information is available during project development)? ([Part 4.K.7.](#)
15452 [Duplication of Benefits and Reporting Requirements](#))

15453 **D.7. Cost-Effectiveness and Feasibility Requirements**

15454 ▪ Does the project include a benefit-cost analysis, alternate cost-effectiveness documentation
15455 (such as substantial damage verification and located in a riverine floodplain; pre-calculated
15456 benefits) or a narrative supporting cost-effectiveness and request for consideration under 5
15457 percent HMGP discretionary funding? ([Part 5.C.1.6. Documentation Requirements](#) and [Part](#)
15458 [6.D. Cost-Effectiveness Documentation](#))

15459 ▪ Does the project include technical information to support the proposed action? ([Part 6.E.](#)
15460 [Feasibility and Effectiveness Documentation](#) and [Part 6.C.1.2. Activities Description](#))

15461 **D.8. Environmental and Historic Preservation Requirements**

15462 ▪ Does the project demonstrate conformance with environmental and historic preservation
15463 requirements? ([Part 6.F.1. EHP Checklist](#))

15464 **D.9. Assurance Requirements**

15465 ▪ Has the statement of assurances been provided? Assurances may vary for construction or
15466 nonconstruction activities.⁴⁷² ([Part 6.B.3. Application Documentation and Assurance Forms](#))

15467 ▪ Has SF-LLL, Disclosure of Lobbying Activities, been provided? ⁴⁷³ ([Part 6.B.3. Application](#)
15468 [Documentation and Assurance Forms](#))

15469 **D.10. Mitigation Project Requirements**

15470 The following sections outline the minimum eligibility criteria for project specific activities.

⁴⁷² Available on Grants.gov under the SF-424 Family. The assurances may include, SF-424A, Budget Information for Non-Construction; SF-424B, Assurances for Non-Construction; SF-424C, Budget Information for Construction; SF-424D, Assurances for Construction

⁴⁷³ Available on [Grants.gov](#)

15471 **D.10.1. PROPERTY ACQUISITION REQUIREMENTS**

- 15472 ▪ Does the project comply with the timelines and all other criteria set forth in 44 CFR part 80,
15473 including the deed restriction language consistent with the FEMA Model Deed Restriction?
15474 ([Part 12.B.1.2. Property Acquisition: Eligibility](#))

- 15475 ▪ Does the project identify eligible activities such as the following:

 - 15476 ○ Acquisition and Relocation. ([Part 12.B.1.2. Property Acquisition: Eligibility](#))
 - 15477 ○ Acquisition and Demolition. ([Part 12.B.1.2. Property Acquisition: Eligibility](#))

- 15478 ▪ If applicable, has documentation that the property owner is a national of the United States or
15479 a qualified alien been provided? ([Part 12.B.1.2. Property Acquisition: Eligibility](#))

- 15480 ▪ Does the project include voluntary participation documentation for each property? ([Part](#)
15481 [12.B.1.3.2. Statement of Voluntary Participation](#))

- 15482 ▪ For properties that are to be relocated, will the structure be relocated outside of the Special
15483 Flood Hazard Area? ([Part 12.B.1.4.2. Relocation and Removal of Existing Buildings](#))

15484 **D.10.2. STRUCTURE ELEVATION REQUIREMENTS**

- 15485 ▪ Does the project identify the Base Flood Elevation or elevation required by FEMA or local
15486 ordinance? ([Part 12.B.3.3. Structure Elevation: Application and Submission Information](#))

- 15487 ▪ Does the project include finished floor elevation? Elevation certificate is preferred. ([Part](#)
15488 [12.B.3.3. Structure Elevation: Application and Submission Information](#))

- 15489 ▪ Does the project include the proposed elevation height of the structure? ([Part 12.B.3.3.](#)
15490 [Structure Elevation: Application and Submission Information](#))

- 15491 ▪ Is the project designed and implemented consistent with latest ASCE-24 or equivalent? ([Part](#)
15492 [12.B.3.2.2.2. Use of American Society of Civil Engineers 24 as Minimum Design](#)
15493 [Requirements for Certain Flood Risk Reduction Activities](#))

15494 **D.10.3. FLOOD RISK REDUCTION REQUIREMENTS**

- 15495 ▪ Does the project include initial technical information to support size, costs and local
15496 permitting requirements? ([Part 12.B.5.5. Flood Risk Reduction: Application and Submission](#)
15497 [Information](#))

- 15498 ▪ Does the project describe how it will reduce flooding depths and damages and specify the
15499 level of protection provided? ([Part 12.B.5.5. Flood Risk Reduction: Application and](#)
15500 [Submission Information](#))

15501 **D.10.4. SAFE ROOM REQUIREMENTS**

- 15502 ▪ Does the project include the population size and basis? ([Part 12.B.8.2.2.1. Populations](#)
15503 [Served by the Safe Room](#))
- 15504 ▪ Is the safe room project not sited in FEMA-designated SFHAs? Or, if the saferoom project is
15505 located in a FEMA-designated SFHA area or the 500-year flood hazard area, but the 8-step
15506 Decision Process has successfully been completed for [Executive Order \(EO\) 11988](#),
15507 *Floodplain Management* (May 24, 1977) as amended by [EO 13690](#), as provided by 44 CFR
15508 § 9.6. (i.e., the consultation with the local and state emergency management officials led to
15509 the conclusion that there is no other feasible option than having the safe room project sited
15510 in an SFHA or the 500-year flood hazard area, as outlined in FEMA P-361)? ([Part](#)
15511 [12.B.8.2.1Eligibility Criteria](#))
- 15512 ▪ Is the safe room designed and implemented consistent with FEMA P-361? ([Part 12.B.8.2.7.](#)
15513 [Feasibility and Effectiveness](#))

15514 **D.10.5. WIND RETROFIT REQUIREMENTS**

- 15515 ▪ Does the project include the proposed level of protection? ([Part 12.B.10.3.2. Scope of Work](#))
- 15516 ▪ Has the project been designed and implemented consistent with P-804? ([Part 12.B.10.2.2.](#)
15517 [Feasibility and Effectiveness](#))

15518 **D.10.6. GENERATOR REQUIREMENTS**

- 15519 ▪ Does critical facility information include data such as the date the structure was built,
15520 building type and the functions provided, construction type and additional details relating to
15521 the existing condition of the structure? ([Part 12.B.11.3. Generators: Application and](#)
15522 [Submission Information](#))

15523 E. HMGP Planning Subapplication Minimum Eligibility 15524 Criteria Checklist

15525 The purpose of the HMGP Planning Subapplication Minimum Eligibility Criteria Checklist is to ensure
15526 that applications/subapplications submitted to FEMA contain the minimum criteria for eligibility.

15527 If an application/subapplication lacks the necessary eligibility information, FEMA cannot determine
15528 eligibility and approve an application. If information is lacking, FEMA may request additional
15529 information during the review process. Each requirement lists the section of the HMA Guide where
15530 more information can be found.

15531 E.1. General Requirements

- 15532 ▪ Is the subapplication number and title included? ([Part 11.A.4.1. Scope and Schedule for New](#)
15533 [Plan Creation or Plan Updates](#))

15534 E.2. Applicants and Subapplicants

- 15535 ▪ Is an eligible applicant identified? (states, federally recognized tribal governments and
15536 territories) ([Part 4.A. Eligible Applicants](#))

- 15537 ▪ Is an eligible subapplicant identified? (state agencies, local governments, federally
15538 recognized tribal governments and private nonprofit organizations) ([Part 4.B. Eligible](#)
15539 [Subapplicants](#))

- 15540 ▪ If the application/subapplication activity is for planning updates or planning related activities,
15541 does the applicant/subapplicant have a current mitigation plan? ([Part 11.A.4.1.Scope and](#)
15542 [Schedule for New Plan Creation or Plan Updates](#) and [Part 11.A.4.2. Scope and Schedule for](#)
15543 [Planning-Related Activities](#))

15544 E.3. Scope of Work Requirements

- 15545 ▪ Is the proposed mitigation planning activity, as described in the scope of work, eligible for the
15546 program and describes how the proposed activity aligns with the current mitigation plan?
15547 ([Part 11.A.4.1. Scope and Schedule for New Plan Creation or Plan Updates](#))

- 15548 ▪ Is the proposed planning activity described, including whether it will result in a new or
15549 updated hazard mitigation plan or enhance an existing mitigation plan in accordance with
15550 the FEMA Mitigation Planning regulation at 44 CFR part 201 and HMA Guide? ([Part 11.A.4.1.](#)
15551 [Scope and Schedule for New Plan Creation or Plan Updates](#))

- 15552 ▪ Are participating jurisdiction(s) and private nonprofits, if applicable, identified and described?
15553 ([Part 11.A.4.1. Scope and Schedule for New Plan Creation or Plan Updates](#))

15554 ▪ Does the narrative describe procedures to engage stakeholders and participating
15555 jurisdictions? ([Part 11.A.4.1. Scope and Schedule for New Plan Creation or Plan Updates](#))

15556 ▪ Does the scope of work discuss approaches, outcomes and level of effort, including key
15557 milestones and schedule and the relationship of each activity to the cost estimate? ([Part](#)
15558 [11.A.4.1. Scope and Schedule for New Plan Creation or Plan Updates](#))

15559 **E.4. Hazard Mitigation Plan Update Requirements**

15560 ▪ Does the scope of work describe the process that each jurisdiction will complete to review
15561 each section of the previous plan and address gaps, as needed; new information (including
15562 hazard, land use and development trends); how the previous plan was implemented; and
15563 what process will be used? ([Part 11.A.4.1. Scope and Schedule for New Plan Creation or Plan](#)
15564 [Updates](#))

15565 **E.5. Schedule Requirements**

15566 ▪ Does the application include a work schedule within the period of performance and allow
15567 sufficient time for state or tribal and FEMA reviews; preparation of required revisions, if
15568 needed; formal adoption by the jurisdiction(s); and FEMA approval? ([Part 11.A.4.1. Scope](#)
15569 [and Schedule for New Plan Creation or Plan Updates](#))

15570 **E.6. Cost Review Requirements**

15571 ▪ Does the application include a detailed cost estimate that supports the SOW and is
15572 reasonable for the jurisdiction(s) participating? Lump-sum cost estimates are not eligible and
15573 will not be accepted. ([Part 11.A.4.3. Costs](#))

15574 ▪ Does the application or subapplication identify information on the required non-federal cost
15575 share and contribution sources? ([Part 6.C.3.2. Non-federal Funding Share](#))