Applying for FEMA Assistance Grants – Best Practices for Success

April 1, 2021

CALIFORNIA HOSPITAL ASSOCIATION

Welcome

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Director, Publishing & Marketing
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CALIFORNIA HOSPITAL ASSOCIATION

Questions

Submit your questions through the Q & A box. (Usually located at the bottom of your screen.)

Faculty

From Hagerty Consulting:

Scott Baldwin is expert in natural hazard mitigation in both the pre- and post-disaster recovery environments. He has more than 10 years' experience in FEMA's Hazard Mitigation Assistance and Public Assistance (PA) programs and has worked with communities in Colorado and California.

Vanessa Castillo has extensive experience with FEMA mitigation programs. She previously served as a Mitigation Specialist with the state of Colorado where she contributed to the implementation of the Hazard Mitigation Grant Program (HMGP) for Colorado's largest disaster.

Amelia Muccio is a subject matter expert in disaster recovery. With more than 15 years of experience in public health, disaster preparedness, mitigation, and financial recovery, Amelia has helped clients obtain $5 billion in federal funds after major disasters.

Faculty

From Cal OES

Jacy Hyde, Chief of the Hazard Mitigation Assistance Branch
Jacy is the Deputy State Hazard Mitigation Officer and has expertise in forest ecology. Jacy earned her PhD by researching strategies to mitigate risks and impacts associated with energy infrastructure development.

From CHA

Mary Massey, Vice President, Emergency Management
Mary has more than 25 years' experience in hospital emergency services and county health disaster management. She participates in multi-agency, state and federal coalitions and deploys with the CA-1 Disaster Medical Assistance (DMAT) Team.

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Hazard Mitigation Assistance (HMA) Grants: Critical Healthcare Facilities

April 1, 2021

Agenda

- Overview of Hazard Mitigation Assistance (HMA) program
- Eligibility requirements
- Subapplication types
- Potential projects
- Environmental and Historic Preservation (EHP) review
- Cost-Effectiveness/Benefit-Cost Analysis (BCA)
- Best practices
- Grant timeline
- Available resources and Cal OES technical assistance (TA)

OVERVIEW Of HAZARD MITIGATION ASSISTANCE (HMA)

Overview of Hazard Mitigation Assistance Grants

	Flood Mitigation Assistance (FMA)	Building Resilient Infrastructure and Communities (BRIC)	Hazard Mitigation Grant Program (HMGP) / 404
Purpose	A nationally competitive program to reduce or eliminate the risk of repetitive flood damage and structures insured under the National Flood Insurance Program (NFIP)	Program to implement cost-effective measures designed to reduce the risk to infrastructure and communities while also reducing the reliance on Federal funding for future disasters	Program to implement cost-effective measures that can be used for any at-risk site to mitigate threats to the public, critical facilities, and property
Available Assistance	Annually (Congress Appropriated) FY20 - $200M nationwide	Annually (6% of FEMA assistance per disaster declaration) $500M nationwide (FY20)	Based on % of damages statewide from IA, PA, and mission assignments (post-disaster)
Competition	Nationwide	Nationwide	Statewide

ELIGIBILITY

Hazard Mitigation Assistance (HMA) Basics

- Eligible subapplicant
- FEMA approved Hazard Mitigation Plan
- No construction or groundbreaking before grant award
- Approved Notice of Intent (NOI)
- Scope of Work (SOW) with a clear level of protection increase
- Benefit-Cost Analysis (BCA), (needed for projects)
- Provide at least 25% local match (non-Federal cost share)
- Period of Performance (POP) of 36 months or less
- Not dependent on other projects or funding sources
- Must comply with Federal regulations including 2 CRF 200 and National Environmental Policy Act (NEPA)
- Reimbursement based grant with eligible grant management costs and pre-award costs

Building Resilient Infrastructure and Communities (BRIC) Funding

- High-impact projects
- Must reduce risk as primary benefit
- Designed or shovel-ready projects
- Address multiple community lifelines
- Could result in severe cascading impacts if not for mitigation solution/intervention
- Protects critical infrastructure
- Cost-effective (saves FEMA dollars in the end)
- Nature-Based solutions when possible
- Public Private Partnerships and overmatching (providing more than 25% of the local match)
- Protecting at risk, vulnerable populations
- **PNPs are not eligible subapplicants for BRIC**

Eligible Subapplicant-Plan Requirement

- **Eligible subapplicants for Hazard Mitigation Grant Program (HMGP) and Building Resilient Infrastructure and Communities (BRIC) funding must be adopting participants of a Local Hazard Mitigation Plan (LHMP) or Multi-Jurisdiction Hazard Mitigation Plan (HMP)**
- If not, you must partner with an eligible local entity that does have a current Local Hazard Mitigation Plan/Multi-Jurisdiction Hazard Mitigation Plan
- For Building Resilient Infrastructure and Communities, and Hazard Mitigation Plan must be FEMA-approved by the application deadline and at the time of grant fund obligation
- For HMGP, the Hazard Mitigation Plan must be FEMA-approved at the time of obligation of funds

Duplication of Programs (DOP)

- **FEMA will not approve Hazard Mitigation Assistance (HMA) if the authority lies with another Federal agency or program**
- Subapplicant must conduct consultation to ensure DOP between Federal agencies will not occur
- Agencies include
  - U.S. Department of Agriculture (USDA)
  - U.S. Army Corps of Engineers (USACE)
  - U.S. Forest Service (USFS)
  - Natural Resources Conservation Service (NRCS)
  - U.S. Fish and Wildlife Service (USFWS)
  - National Park Service (NPS)
  - Bureau of Land Management (BLM)
  - Bureau of Indian Affairs

SUBAPPLICATION TYPES

5 % Initiative Hazard Mitigation Grant Program (HMGP)

- The 5% Initiative is used for unique eligible projects that are difficult to evaluate using traditional FEMA cost-effectiveness criteria
- Funding is extremely limited (subapplications greatly outnumber the available funding, which is 5% of the Hazard Mitigation Grant Program funding available)
  - Generators and other back-up power
  - Warning sirens and similar systems
  - Hazard mapping
  - Public educational campaigns
  - Building code updates
  - "Green" resiliency approaches

Advance Assistance (AA) for Hazard Mitigation Grant Program

- For complex problems where data and studies are needed to develop a mitigation solution, AA is used to undertake studies and to develop mitigation strategies/alternatives to help prioritize, select, and develop complete applications
- **AA subapplications should either end in a subapplication for a future project or clearly demonstrate how the AA subapplication will lead to future Hazard Mitigation Assistance project(s)**
  - Funding is used to help determine the best or preferred alternative (solution/scope) for a hazard
  - Useful for complex mitigation projects that require additional time and analysis and where a solution is not readily available
  - Helpful to identify larger scale, watershed-wide or regionally-based mitigation projects

Project Scoping Building Resilient Infrastructure and Communities (BRIC)

- Intended to build capacity at a local level to mitigate hazards
- Provides funding for project design and Environmental and Historic Preservation (EHP) review
- Projects should result in a complete and eligible subapplication for future BRIC/Hazard Mitigation Grant Program opportunities
  - Detailed scope of work "preferred alternative"
  - Other feasible alternatives
  - List of impacted/participating properties
  - Completed design documents and cost estimates
  - Schedule
  - Environmental and Historic Preservation (EHP)
    - California Environmental Quality Act (CEQA)
    - Studies to facilitate National Environmental Policy Act (NEPA) process (biological, archeological surveys)
  - Engineering, feasibility, and/or technical Studies
    - Geotech
    - Hydrology and Hydraulics study
  - Technical standards and specifications
  - Floodplain management considerations
  - Final Benefit-Cost Analysis (BCA)

Phased Project Hazard Mitigation Grant Program and Building Resilient Infrastructure and Communities

- For subapplications that have a conceptual scope of work that meets FEMA eligibility requirements, but whose complexity requires additional studies and design development to get the subapplication to the point where all eligibility determination can be made
- Specifically, a phased project is an eligible Hazard Mitigation Assistance activity (project) that requires additional technical work to fully determine eligibility, feasibility, cost effectiveness, and/or Environmental and Historical Preservation review/compliance
- A phased project should have its scope, schedule, and budget divided into Phase I (design and studies) and Phase II (construction)
  - Phase I design
  - Engineering Studies
  - Feasibility study and Benefit Cost Analysis
  - Environmental and Historical Preservation documentation

Standard Project Hazard Mitigation Grant Program and Building Resilient Infrastructure Communities

- A project subapplication that is developed sufficiently so that the State and FEMA can make all relevant eligibility determinations – Benefit-Cost Analysis, program eligibility, technical feasibility, and Entertainment and Historical P review
- Beyond a standard Request for Information(RFI) for scope clarification, no additional in-depth engineering or other studies would be required for approval and full funding
    - Shovel ready infrastructure hardening projects

POTENTIAL PROJECTS

Examples of Post Fire Erosion Control and Soil Stabilization

- **14 activities** under Disaster Recovery Reform Act (DRRA) 2018 Section 1205 for **areas affected by a wildfire**
- More information in the FEMA Job Aid, Activities for Wildfire and Wind Implementation under HMA Programs.

1) Reseeding ground cover with quick-growing or native species 2) Mulching with straw or chipped wood 3) Constructing straw, rock, or log dams in small tributaries to prevent flooding 4) Placing logs and other erosion barriers to catch sediment on hill slopes 5) Installing debris traps to modify road and trail drainage mechanisms 6) Modifying or removing culverts to allow drainage to flow freely 7) Adding drainage dips and constructing emergency spillways to keep roads and bridges from washing out during floods	8) Planting grass to prevent the spread of noxious weeds 9) Installing warning signs 10) Establishing defensible space measures 11) Reducing hazardous fuels 12) Mitigating windstorm damage, including replacing or installing electrical transmission or distribution utility pole structures with poles that are resilient to extreme wind and combined ice and wind loadings for the basic wind speeds and ice conditions associated with the relevant location 13) Removing standing burned trees 14) Replacing water systems that have been burned and have caused contamination

Examples of Wildfire Mitigation Projects

Hazardous Fuels Reduction	Defensible Space	Ignition Resistant Construction
Removing vegetative fuels proximate to at risk structures that, if ignited, pose a significant threat to human life, property and critical facilities.	Creating ***parameters*** around homes, structures, and ***critical facilities*** through the removal or reduction of flammable vegetation.	Applying ignition resistant techniques and non-combustible materials on new and existing homes, structures, and critical facilities.
HFR projects must be within ***2 miles*** of homes and other structures.	**Compliant w/ local fire codes**, standards and design criteria (FEMA, U.S. Fire Administration, National Fire Protection Association)	Compliant with local codes and standards
Must demonstrate risk reduction to people, property, infrastructure or critical facilities.	Well-established and proven techniques	**Must be accompanied by defensible space**

Examples of Infrastructure Hardening Projects

Infrastructure system protective measures

- Flood risk reduction
  - Elevation
  - Floodproofing and flood diversion
  - Stormwater management/drainage
  - Infrastructure relocation

- Seismic activities
  - Structural retrofits
  - Non-structural bracing and anchoring

Case Study- Hospital Flood Mitigation

NYU Langone Medical Center Flood Resilience Projects

Details

Project Owner
New York University

Type of Project
Building Retrofits

Area of Impact
Has potential to impact a significant percentage of the population of the borough of Brooklyn
(Total Pop: 2.6 million in 2017)

$ Cost

Total Project Cost
$1.13 billion

Funding Sources

Federal Funding
FEMA

- Public Assistance ($150 million)
- Section 428 Capped Grant ($411 million for repair/restoration; $589 million for hazard mitigation)

Other Federal Agencies

National Flood Insurance Program

HHS Social Services Block Grant Program

Non-Federal Funding
Ronald O. Perelman

Benefits

Primary

- Avoidance of physical damage to the hospital building and contents such as large medical equipment
- Life-safety benefits, including a reduction in potential injuries/deaths for hospital patients
- Reduction/elimination of the need to relocate patients during disaster events

Secondary

- Social benefits of providing a place from which to mobilize resources during a disaster
- Reduction in stress on staff and patients, potentially resulting in faster patient recoveries and a reduction in disaster-related or exacerbated medical conditions

Partnerships

Partnership helped align funding from FEMA (Public Assistance and Section 428 grant), HHS Social Services Block Grant Program, and Ronald O. Perelman.

Project Timeline

Status
In progress

Project Completion Date
On target to be completed by August 2021

? Challenges Faced

- The need to equip Langone to manage its typical patient load, as well as an influx as a result of a natural disaster

Resources & References

FEMA. 2017. "NYU Langone Medical Center." Last modified October 28, 2017. https://www.fema.gov/nyu-langone-medical-center.

Healthcare Without Harm. 2018. "Safe haven in the storm: Protecting lives and margins with climate-smart health care." January 2018. https://noharm-uscanada.org/sites/default/files/documents-files/5146/Safe_haven.pdf.

Healthcare Without Harm. 2019. "NYU Langone Health protecting patients by investing in resilience." Last modified June 18, 2019. https://noharm-uscanada.org/articles/news/us-canada/nyu-langone-health-protecting-patients-investing-resilience.

Case Study- Hospital Seismic Retrofit

Earthquake Safety Retrofits at Good Samaritan Hospital

Details

Project Owner
Good Samaritan Hospital

Type of Project
Hospital Retrofits

Area of Impact
Hospital facility

$ Cost

Total Project Cost
$2.3 Million

Funding Sources

Federal Funding
FEMA HMGP: $1.7 Million

Non-Federal Funding
Non-federal sources: $600,000

Benefits

Primary

- Reduces damage to non-structural components and high-value contents, such as medical equipment and communications hardware
- Provides additional life-safety benefits, including reduced injuries or deaths, due to disabled or unusable medical equipment

Secondary

- Reduces impact injuries during earthquake event as a result of bracing and anchoring of non-structural components and other contents
- Reduces emergency services costs from need to use other emergency facilities

Partnerships

California Governor's Office of Emergency Services (Cal OES)

The City of Los Angeles

Project Timeline

Start Date
Project funds awarded January 2020

Resources & References

FEMA. 2020. "FEMA Funds Earthquake Safety for Los Angeles Hospital." https://www.fema.gov/news-release/2020/01/17/fema-funds-earthquake-safety-los-angeles-hospital

Case Study- Seismic Retrofit Phased Project

Adventist Health White Memorial Medical Center

- Provides critical services to vulnerable population
- Demonstrated structural vulnerability to earthquake event
- **Structural and non-structural modifications to bring hospital structures into compliance with California seismic codes**
- Phase One involves feasibility analyses and design plans
- $1.5 million Phase One; $1.1 million Hazard Mitigation Grant Program for Phase One

Case Study- Earthquake Early Warning

Cedars Sinai Medical Center

- *5 % Initiative Project- No Benefit Cost Analysis required*
- Early warning notifications for significant earthquakes
- **Protect patients and staff, critical infrastructure, equipment, and processes**
- Purchase and installation of specialized computers with cable attachments to existing warning systems
- $160,000 project; $120,000 in Hazard Mitigation Grant Program

Examples of Energy Mitigation Projects

- Generator
- Solar and battery storage
- Microgrid
  - Generator, battery, and/or renewable resources
  - Storage capacity
  - Connection/Switch (automatic or manual)

Case Study- Emergency Backup Power

Kauai's Wilcox Medical Center, HI

- Two 1,000 kw-diesel generators with fuel tanks, automatic transfer switches, and switch gear sets
- Support both **critical and routine hospital operations** in the event of a disaster
- **Critical health and medical lifeline** facility in HI State Hazard Mitigation Plan
- $12.3 million project; $4 million federal share (Pre-Disaster Mitigation program)

https://www.hawaiipacifichealth.org/wilcox/about-us/legacy/

Case Study- Emergency Backup Power

Los Angeles Department of Public Health

- Backup emergency generators for **critical public health facilities**
- Installation of generator systems at 11 critical public health clinics support refrigeration of health supplies.
- Proper storage and effective dispensing of vaccines, antidotes and test samples
- $3 million project /$2.25 million in Hazard Mitigation Grant Program

ENVIRONMENTAL AND HISTORICAL PRESERVATION

Environmental & Historic Preservation (EHP)

California Environmental Quality Act (CEQA)- California Code of Regulations (CCR), Title 14, Division 6, Chapter 3, Sections 15000 -15387:

- Subapplicant is responsible for complying with all CEQA Regulations
- FEMA does not review projects for CEQA compliance, that is the responsibility of the CEQA "Lead Agency"
- CEQA process: 1) Exemption or Initial Study 2) Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report. Mitigation for environmental impacts is required
- Cal OES checks projects for CEQA compliance certification
- Several Hazard Mitigation Grant Program project types can be exempt from CEQA; documentation of exemption must be provided

Environmental & Historic Preservation (EHP)

Federal – National Environmental Policy Act (NEPA) Title 40, Code of Federal Regulations (CFR) Parts 1500 -1508:

- Requires investigation of the potential environmental impacts of proposed federal action, such as Hazard Mitigation Grant Projects
- Completion of the Cal OES Environmental and Historical Preservation Checklist assists FEMA with the National Environmental Policy Act review process
- Approval of Environmental and Historic Preservation submittals is by FEMA following preliminary Cal OES review

COST-EFFECTIVENESS (Benefit-Cost Analysis)

Cost-Effectiveness: Benefit-Cost Analysis

- Achieving a **Benefit-Cost Ratio (BCR) ≥ 1.0**
- FEMA BCA tool v 6.0 (compliant with OMB A-94)
- Benefits in a FEMA Benefit-Cost Analysis are any future costs or losses that are avoided as a result of the mitigation project
- These future costs or losses can include:
  - Direct damages (structure and contents damage, etc.)
  - Displacement costs
  - Loss of function
  - Emergency management costs
  - Casualties

Scoping Your Benefit-Cost Analysis

The following questions will help you frame your Benefit-Cost Analysis:

- **What is the overall intent of your project?**
  - This is different than the physical work being performed.
- **What facilities or public services will be protected by the project?**
  - Hospitals, critical health facilities and/or functions
- **What is the level of effectiveness of your project?**
- **What damages occurred that can be directly tied to the hazard being mitigated?**

What Data Do I Need?

- Project location and hazard being mitigated
- Project cost (provide both hard and soft costs)
- Project useful life
- People served by hospital, distance to the nearest hospital
- Annual budget for facilities other than hospitals
- Level of project effectiveness
- Past or estimated damages – in dollars and/or number of days service impacted, preferably associated with Recurrence Intervals (RIs)
- The project scope and what will the scope protect and for how long?
  - How does implementing this project stop the hazard?
  - What is the level of design documents available (schematic, 30%, 60%, final)?

Common Benefit-Cost Analysis Issues

- Lack of documentation for data entered
- Insufficient data or documentation on project effectiveness
- Lack of damage history
- Including damages that would not be mitigated by project
- Lack of recurrence interval (RI) data or incorrect interpretation of recurrence interval
- Not including all protected structures

BEST PRACTICES

Best Practices: Scope and Schedule

- Concise **scope of work** that clearly describes activities and method used to accomplish the activities
- Note the **level of protection** increase
- Ensure the **scope**, **schedule**, and **budget** are consistent and reflect project's key concepts and deliverables
- Meaningful supplemental material
- **Explain how your project is an independent mitigation solution**
  - Not dependent on other projects or funding sources

Best Practices: Budget

- **Project Budget**
  - Budget should reflect the activities outlined in the project scope of work
  - Be cognizant of ineligible cost items, such as purchase of equipment (e.g., vehicles, fire trucks, communications, chainsaws, chippers)
  - Include a budget narrative

Best Practices: Cost Effectiveness

- **Benefit-Cost Analysis (BCA) Best Practices**
  - Include BCA 6.0 export file (zip or .xlsx), BCA report print out, BCA tech memo, and supporting docs
  - Should be consistent with **scope of work** and **project budget**
  - Account for **annual maintenance costs**
  - Use **FEMA default values** or if you don't, provide supporting material
  - Provide **supporting documentation** for your inputs & use credible and reliable sources
  - Include a **Benefit-Cost Analysis technical memo** that explains your methodology, your inputs, and provides references to supporting documentation

Best Practices: Phasing

- A conceptual scope of work that meets FEMA eligibility requirements, but **whose complexity requires additional studies and design development** to get the subapplication to the point where all eligibility determination can be made
- A phased project is an eligible Hazard Mitigation Assistance activity that requires **additional technical work to fully determine eligibility, feasibility, cost effectiveness, and/or Environmental and Historic Preservation review/compliance**
- A phased project should have its scope, schedule, and budget divided into Phase I (design and studies) and Phase II (construction)

Best Practices: Phase I Deliverables

- Site selection (list of properties and scope on each property)
- Detailed scope of work "preferred alternative"
- Alternatives
- Completed design documents
- Cost estimates
- Schedule
- Environmental and Historic Preservation
  - California Environmental Quality Act (CEQA)
  - Studies to assist with National Environmental Policy Act (NEPA) process (complex projects and FEMA approval needed)
- Engineering, feasibility, and/or technical Studies
  - Geotech
  - Hydrology and Hydraulics study
- Technical standards and specifications
- Floodplain management considerations
- Final Benefit Cost Analysis

Best Practices: Environmental and Historic Preservation

- **Environmental and Historic Preservation**
  - Frontload consultation with all relevant Federal, State and local agencies and provide communication with application
  - Conduct CEQA in advance of Hazard Mitigation Grant Program application and provide documentation with application, including any completed surveys in the project area (biological, archeological surveys, etc.)
  - Provide visual supporting material (relevant maps, photos)

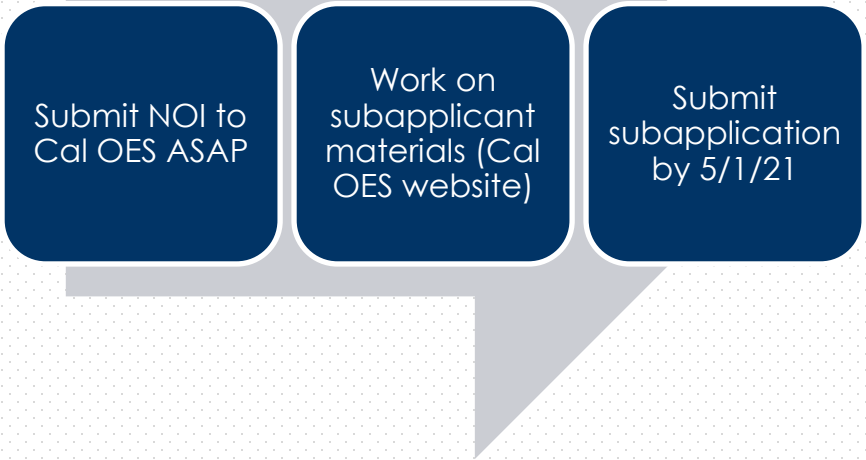
Best Practices: Documentation

- **Supplemental documentation**
  - Legible, easy-to-read maps
  - Documentation to demonstrate no Duplication of Programs (USACE, USDA, USFS, NRCS, USFWS, NPS, BLM, and Bureau of Indian Affairs)
  - Environmental and Historic Preservation (EHP) consultation letters, studies/surveys, and CEQA documentation!
  - Photos of the project area and impacted structures

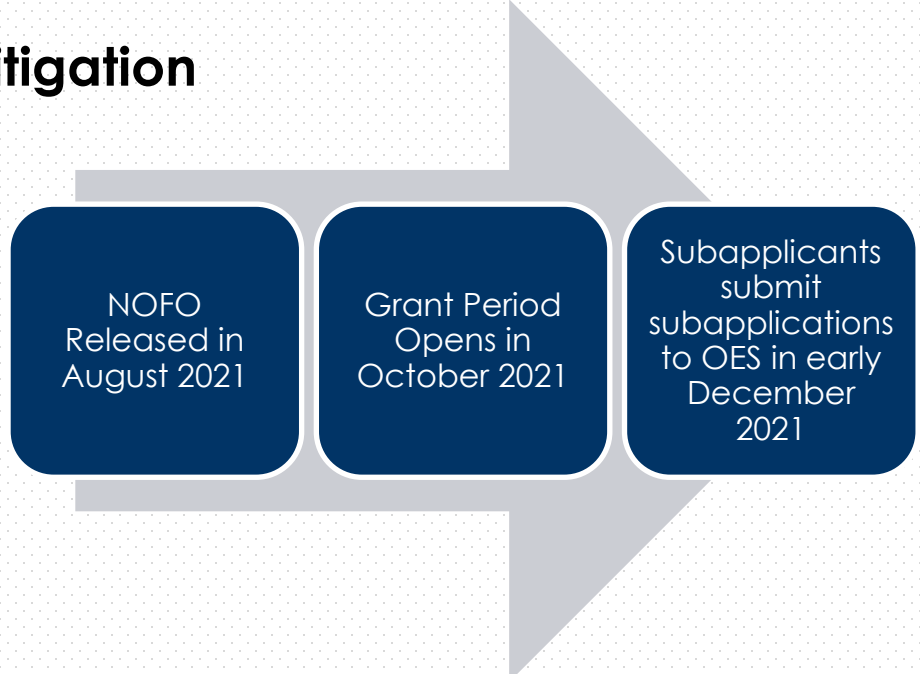
GRANT TIMELINES

Grant Timeline

- **Hazard Mitigation Grant Program (4569)**



- **BRIC/Flood Mitigation Assistance**



RESOURCES AND TECHNICAL ASSISTANCE

Available Resources

- FEMA Hazard Mitigation Assistance Guidance: https://www.fema.gov/grants/mitigation/hazard-mitigation-assistance-guidance
- FEMA BRIC: https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities
- FEMA HMGP: https://www.fema.gov/grants/mitigation/hazard-mitigation
- FEMA FMA: https://www.fema.gov/grants/mitigation/floods
- Cal OES: https://www.caloes.ca.gov/cal-oes-divisions/recovery/disaster-mitigation-technical-support/404-hazard-mitigation-grant-program

Technical Assistance

- Cal OES provides technical assistance to subapplicants on a range of topics including: project scoping, subapplication development, Benefit-Cost Analysis, Environmental and Historic Preservation, and program eligibility/feasibility

- Send all questions or technical assistance requests to the Hazard Mitigation Grant Program email box at: **HMA@caloes.ca.gov**

Questions

Submit your questions through the Q & A box. (Usually located at the bottom of your screen.)

Thank You

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