Environmental & Historic Preservation Primer for Nature-Based Hazard Mitigation

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Overview

The Environmental & Historic Preservation (EHP) review is often cited as one of the most daunting, time-consuming, and costly steps in the FEMA subapplication process. Though FEMA, other federal agencies, and states provide a substantial volume of EHP guidance and educational material, a simple document that provides context and best practices specific to large-scale, nature-based projects is missing. This primer is intended mainly for subapplicants considering complex, large-scale – often called landscape-scale – projects to reduce risk from future hazards. Teams considering smaller projects may also benefit from the concepts presented here though they may find the application process to be overly burdensome relative to the funding required. The primer is presented in four sections:

I **Understand the Big Picture**

II **Create a Robust Project Description and Approach**

III **Learn and Meet EHP Requirements**

IV **Engage Successfully with Partners**

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I Understand the Big Picture


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The first step to successful EHP compliance is understanding the purpose of EHP and how the process informs landscape-scale, nature-based solutions (NBS).

About Nature-Based Solutions

To FEMA "nature-based solutions are sustainable planning, design, environmental management, and engineering practices that weave natural features or processes into the built environment to promote adaptation and resilience."[1] In short, NBS use nature, alone or in combination with traditional 'gray infrastructure', to mitigate future risk from threats like wildfire, sea-level rise, drought, and flooding. NBS can range from small-scale (e.g., site or neighborhood) interventions such as street trees or bioretention features to large-scale projects such as floodplain and stream restoration or living shoreline creation.

Interest in landscape-scale NBS is growing as communities find that nature-based projects may provide equal or better risk reduction when compared with traditional infrastructure. Beyond risk reduction, NBS also contribute additional benefits such as open space preservation, recreation, habitat, carbon sequestration, and opportunities to increase tourism. In addition, NBS can have a longer useful life, greater resilience to extreme events, and lower total cost of ownership when compared with gray infrastructure.[2,3] While NBS offer significant promise, they still represent a relatively new method of risk mitigation and, as such, there are few case studies and well-tested methods for planning and implementing these projects. This gap puts additional burden on project owners and their partners to design effective NBS and steward them through FEMA's eligibility and EHP review processes.

1 FEMA. Nature-Based Solutions Website. (Link)
2 FEMA. 2021. Building Community Resilience with Nature-Based Solutions. (Link)
3 Talberth, J., Gray, E., Yonavjak, Logan., Gartner, T. Solutions for a Sustainable and Desirable Future. 2016. Green Versus Gray: Nature's Solutions to Infrastructure Demands. Solutions for a Sustainable and Desirable Future. (Link)

Environmental & Historic Preservation Summary

The term EHP refers collectively to a group of more than 30 federal regulations, directives, and legal mandates that must be met before proposed actions taken by any federal agency can be approved. "Actions" can include projects and activities directly implemented by a federal agency, as well as indirect actions such as providing funding for projects through FEMA's Hazard Mitigation Assistance (HMA) grant programs. The goal of the EHP review process is to ensure that actions undertaken using federal funding do not violate environmental and historical preservation requirements and protections established at the federal, state, and local level. FEMA regional staff is responsible for leading the EHP review of most HMA subapplications and coordinating review with other agencies, called cooperating agencies, as needed.

The National Environmental Policy Act (NEPA) and the National Historical Preservation Act (NHPA) form the core of the EHP process. While some of the laws and requirements may be familiar (e.g., the Clean Water Act and the Endangered Species Act), others may be less well known (e.g., the Archeologic and Historic Preservation Act of 1974, or AHPA). Bundling these requirements and related reviews under the EHP umbrella helps to simplify communication and review of compliance requirements for subapplicants and federal agencies.

While FEMA ultimately has the responsibility to ensure that a funded project will follow laws and directives related to the environment and historic preservation, subapplicants are expected to assist FEMA by gathering data, collecting or conducting relevant studies, and coordinating with stakeholders. If EHP requirements are identified, the subapplicant should engage relevant state and federal agencies as early in project planning as possible to define and mitigate concerns associated with the proposed project.[4]

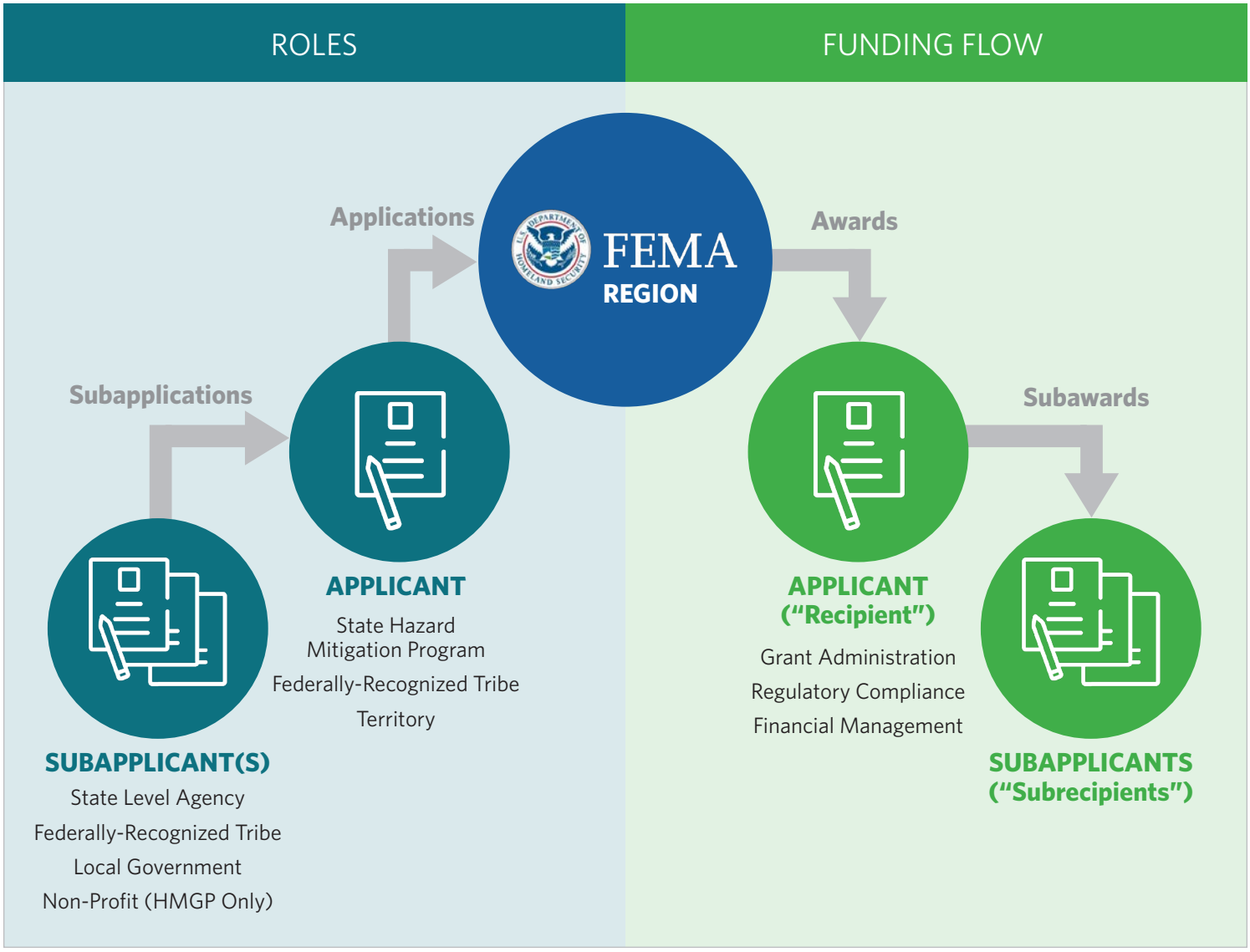
4 FEMA. 2015. Hazard Mitigation Assistance Guidance. p72. (Link).

WHAT ARE THE ROLES OF THE APPLICANT, SUBAPPLICANT, FEMA REGION, AND OTHER FEDERAL AGENCIES?

The use of the terms "applicant" and "subapplicant" can be confusing and sometimes counterintuitive. In the world of HMA grants, the "applicant" describes the state, Tribe, or territory where the project will occur. The applicant, typically via a department of emergency services or equivalent, is responsible for soliciting subapplications from eligible subapplicants and supporting the preparation, review, and submittal of complete subapplications to FEMA's regional office. The "subapplicant" is the project owner that plans the project, develops the subapplication, and will implement the project, if funded. The subapplicant can be a state agency, federally-recognized Tribe, local government or, in some HMA programs, a non-profit organization.[5]

Once the applicant has passed along completed and vetted subapplications, FEMA reviews each project for eligibility, cost effectiveness, and EHP compliance before making its final funding decisions. If projects are approved and funding is awarded by FEMA, the applicant then becomes both the award "recipient" and a pass-through entity by providing grant dollars – known as a subaward – to each successful subapplicant, which becomes a 'subrecipient.'

During implementation, the applicant is accountable for the proper use of federal funds, grant administration, and compliance with program requirements and other applicable federal, state, territorial, and Tribal laws and regulations. The applicant is also responsible for financial management of the program and overseeing all approved projects.[6] These relationships are outlined in the figure below.



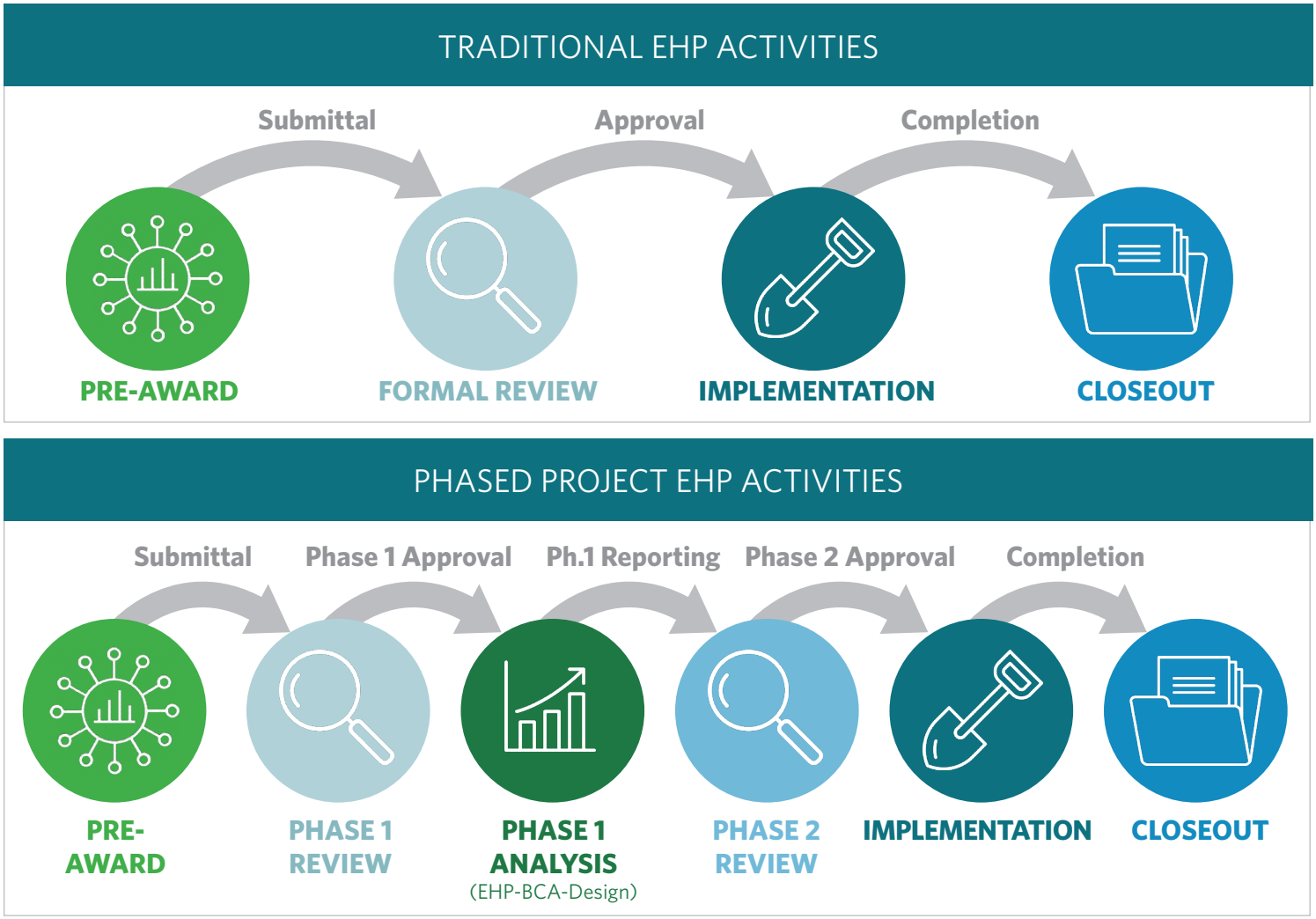
5 Federally-recognized Tribes can choose to apply directly to FEMA as an applicant or via a state or territory as a subapplicant.
6 FEMA. 2015. Hazard Mitigation Assistance Guidance. p5. (Link).

EHP PROCESS

The EHP process can be broken into four phases: pre-award, formal review, project implementation, and closeout. Pre-award includes all activities from initial project conception through submittal of the completed HMA subapplication to the applicant. Formal review describes FEMA's EHP review and approval process from receipt of a subapplication to final approval, or denial, of the EHP-related activities. If approved and funded the subapplicant will implement the project including all EHP compliance requirements. Especially costly or complex projects may be structured to sequence EHP and construction work as a "phased project." In this case, FEMA provides contingent approval of the subapplication to occur in two phases. In the first phase, the subapplicant often finishes EHP work, refines benefit-cost analyses, and conducts additional engineering design and analysis. When phase 1 is completed satisfactorily, FEMA approves funding for phase 2, construction. Finally, upon project completion, FEMA will conduct closeout to verify that EHP activities were successfully accomplished.

Pre-Award

During pre-award, the subapplicant team will begin to define project details – geographical area, partners, engineering approaches, and more – and gather data about project cost, timeline, and intersection with EHP requirements. At the same time, the subapplicant will begin to introduce the project concept to the applicant, potential non-federal financial match partners, and agencies to understand EHP requirements and further refine the project concept. Pre-award inquiry is an iterative, creative process where the scope and approach can be adjusted to maximize the project's benefits while reducing cost and managing timelines. Pre-award is an especially valuable time to determine how the project may affect the environment and historical resources. Early identification of adverse impacts or challenging requirements of EHP allows the subapplicant to adjust the scope, budget, or timeline to manage or eliminate the impact of these concerns, while still achieving risk mitigation objectives. During pre-award, the applicant can be an especially useful resource by providing feedback on



the project, clarifying FEMA requirements, and sharing best practices to improve the project approach and enhance eligibility. Ideally, pre-award work results in a detailed, well-supported subapplication with a realistic, integrated scope of work, budget, and timeline, though it may also result in reevaluating the project approach or fit with HMA funding priorities.

Formal Review

Roles shift during the formal review period. The applicant will conduct an initial review of each subapplication for eligibility and completeness and will forward them to the FEMA regional office for formal review. For a subapplication deemed eligible, the FEMA Region's EHP team will embark on a full compliance review of studies and documentation submitted and will coordinate with other federal agencies to ensure regulatory compliance and resolve outstanding concerns. FEMA may issue Requests for Information (RFIs) to the subapplicant to obtain additional data, ask for clarifications, or request supplemental studies. Information requests may extend the EHP review duration by up to 60 days, if not more, for every RFI sent, according to FEMA. Formal review may take 6-12 months or more to complete depending on project complexity and the number of RFIs issued.

FEMA will conclude the review with a determination as to whether the subapplication sufficiently meets EHP requirements to protect the environment and historical assets in the project area. FEMA may determine that the project qualifies for a categorical exclusion (CATEX), prepare an Environmental Assessment (EA), or embark on a full Environmental Impact Statement (EIS). Additional detail on each is provided below in the FEMA Regional EHP Review section. At the end of the formal review process, FEMA will complete a Record of Environmental Consideration (REC) that defines specific conditions and actions required during project implementation for EHP compliance. REC conditions may include actions such as securing state or federal agency permits or retaining documentation of project activities.

In the case of a phased project, the review will happen in two steps. Phase 1 of the subapplication will be reviewed for EHP compliance and, if approved, funded. FEMA will then consider phase 1 outputs in a second EHP review including new data and project details generated in phase 1 and, if satisfactory, release phase 2 funds. Phased projects are discussed in more detail below.

Implementation

During project implementation, the subapplicant is expected to implement all measures and activities defined in the project scope and required by FEMA for EHP compliance. While a strong subapplication and thorough EHP review should sufficiently address most issues, unexpected challenges related to EHP can be identified during implementation that can affect project timeline and budget. These must be resolved with FEMA, the applicant, and other agencies as needed.

Closeout

Once project implementation is complete, the subapplicant will provide documentation that EHP activities were all successfully completed, and FEMA will verify that REC conditions were met. If REC conditions have not been met, FEMA may deem the project non-compliant, and may withhold or seek to recover grant funds.

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II Create a Robust Project Description and Approach

While EHP compliance can be complex and feel daunting, the process can be simplified by creating a clear, detailed project description. With details in hand, subapplicants will be better prepared to engage with the applicant, FEMA, and other federal agencies to solicit guidance and get questions answered. This upfront work will make downstream activities more manageable and reduce the likelihood of surprises during later phases. This section describes approaches and tips to build a robust project description and gather the materials necessary to support EHP compliance. Since every NBS project has unique characteristics (e.g., hazard types, mitigation actions, geography, ecosystem dynamics), the following ideas are provided as concepts to consider and incorporate, rather than detailed steps to follow precisely.

Recommendations: Project Scope and Approach

A clear, well-defined scope of work is a fundamental requirement to demonstrate project eligibility and support EHP compliance. When projects have hazy goals and poorly defined mitigation actions, it is far more difficult for agencies to understand the proposed work and provide guidance on how EHP requirements will manifest and what studies, compliance data, and mitigation actions may be required. The following practices will help bring clarity to your project and EHP compliance expectations.

Be crystal clear about your project goals and details. While this suggestion may seem obvious, project descriptions often do not provide sufficient detail to determine compliance with relevant EHP requirements. Clarity comes from fully describing the work to be done, the hazard risk reduction anticipated, summarizing partners and stakeholders, and providing a detailed description of the environment (natural and human) and intervention(s) involved.

The ecosystem description should succinctly summarize habitat types, species present, and hydrology along with other information pertinent to the work such as size and nature of ground disturbance anticipated. As soon as possible during the pre-award period, gather supporting evidence such as ecological surveys, hydrology reports, historical site surveys, background data on water rights, and property ownership details. These materials will help clarify how EHP requirements may apply. It is important to

be clear about project goals, but also the broader context: making clear how proposed work relates to surrounding projects and activities – even if they are not part of the subapplication – will help reviewers fully understand the implications on the surrounding environment and community.

Most implementation projects will require at least 60% engineering design to be completed prior to EHP review. This design information is critical for appropriately setting project tasks, budgets, and timelines. Seek guidance from the applicant early in the process to confirm the level of engineering required for your project and explore the option of submitting a phased project if additional design and EHP work is necessary, as described below.

Describe the project in practical terms with links to approved precedents where possible. Many proposed nature-based HMA projects are quite innovative, advancing approaches that have rarely, if ever, been implemented with FEMA funding. NBS also are often sited in ecologically complex environments such as coastal wetlands adjacent to communities and critical infrastructure. These attributes can make the proposed project seem risky and complicated, which may cause reviewers and partners to question the project's viability. The subapplicant can reduce potential concerns by linking the proposed work to elements of traditional projects, past precedent, or research from non-FEMA projects in other regions or countries that can provide proof of concept. Each of these connections can reduce the perceived risk and uncertainty for reviewers and make the proposed project feel more manageable and predictable.

The gold standard is linking the proposed project with one or more previously approved FEMA subapplications that share project details or occurred within similar ecosystems. For example, an estuary restoration may share similar characteristics with a proposed floodplain wetlands enhancement project. When precedent is not available, then it's the subapplicant's job to build the most logical case possible with available information. A subapplicant's goal here is to demonstrate to reviewers a clear understanding of project activities and possible EHP-related concerns, which is a prerequisite to constructing an EHP-compliant project.


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DISCOVER SIMILAR PROJECTS

Finding similar projects will require additional research. The simplest step is to ask your partners and applicant contacts whether they are aware of similar efforts involving FEMA or other agencies. Each year, FEMA also publishes a list of all subapplications submitted called "Pre-Disaster Mitigation Subapplicant Status."(Link) While only the location, cost, and title are provided, these details may be sufficient to identify and connect with the subapplicant to learn more about their project and experience.


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Consider requesting a project scoping grant or direct technical assistance to reduce risk in your implementation project and secure more technical support. Complex NBS projects can require substantial planning and analysis to confirm preferred solutions, determine specific EHP requirements, and build confidence in project timelines and budgets. In addition, these activities can require more than the 36-month implementation window that is standard for most HMA programs.

Instead of jumping directly into an implementation project proposal, subapplicants may consider applying for additional project scoping support prior to submitting a project implementation subapplication. One or more of the following forms of project scoping assistance may be available depending on the specific HMA program and year:

- **Advance Assistance (AA) may be available in the Hazard Mitigation Grant Program (HMGP).** Applicants and subapplicants may use Advance Assistance to develop mitigation strategies alongside FEMA and obtain data to prioritize, select, and develop complete HMGP implementation subapplications.[7]
- **Capability and Capacity Building (C&CB) Project Scoping** grants from the BRIC program provide dollars to subapplicants to develop project alternatives, consider EHP requirements, conduct engineering analyses, and conduct other scoping and research activities to support a strong future project implementation subapplication. Importantly, C&CB funds are allocated by each applicant within its region and are not nationally competitive.[8]
- **Direct Technical Assistance (DTS)** provides FEMA's non-financial support to communities at the earliest planning stages to reduce disaster damage, build community resilience, and sustain successful mitigation programs. DTS engagements may last up to 36 months and are provided to a limited number of communities depending upon the specific FEMA program and funds available.[9, 10]

Separating scoping work from the implementation project may be effective for several reasons:

- Scoping grants provide time for the subapplicant to engage with FEMA and the applicant more intensively and work through project questions and issues. This type of engagement provides better insight into EHP implementation requirements while building support amongst reviewers and project advocates. A scoping grant also allows more time to build relationships with project partners and the public which may facilitate future implementation efforts. Support from and collaboration with stakeholders engaged during scoping may further enhance implementation project quality and increase the likelihood of approval.
- Scoping grants provide funding and time to fully evaluate alternatives and conduct preliminary designs to ensure that the project implementation subapplication represents the most effective alternative. Option analysis may be especially complex with large-scale NBS that are simultaneously affected by multiple threats such as increased rainfall intensity, sea level rise, and drought. Scoping activities may also reveal that a different FEMA program may be a better match for the proposed project.
- Costs incurred during the planning process do not count toward the implementation project's benefit-cost ratio. An implementation project's benefit-cost ratio will improve by securing separate funding for planning, versus the alternative of bundling planning work into a single implementation subapplication.

A NOTE ABOUT PROPERTY ACQUISITION

When purchase of a property is required to execute a hazard mitigation project, the subapplicant must work with the applicant and other stakeholders to determine the most appropriate timing for the purchase. Typically, purchase will occur during implementation, but this can create potential risk in the event that that purchase cannot be completed in a timely manner. Purchasing the property prior to implementation generates cost and risk for the subapplicant in the event the subapplication is not funded. Discussing timing considerations with the applicant as early as possible during pre-award is useful for determining the most prudent approach.

7 FEMA. Hazard Mitigation Assistance Cost Share Guide for Applicants, Subapplicants, and FEMA. 2016. p2-1. (Link)
8 FEMA. Building Resilient Infrastructure and Communities (BRIC) Website. (Link)
9 FEMA. BRIC Direct Technical Assistance. Website. (Link)
10 FEMA. BRIC Technical Assistance Communities. Website (Link)

Consider a phased project: Where a scoping project is submitted as a stand-alone effort to be followed by an implementation project in a second subapplication, a phased project typically includes design/engineering and implementation together in one subapplication. Per FEMA, a phased approach is best for projects that are further along in development but for which funding is lacking to complete certain technical pieces, such as EHP-related studies or a full benefit-cost analysis, though the subapplication must demonstrate preliminary cost-effectiveness.[11] When a phased subapplication is approved, FEMA will initially release funds to complete phase 1. When phase 1 deliverables are completed and approved by FEMA, funds for phase 2 will be released. Phased projects typically must be completed within the standard period of performance, typically 36 months.[12] (Note that FEMA review time between phases does not count towards the 36-month timeline.) While this approach does not have all the benefits described earlier for project scoping, phasing may be especially useful for NBS that are well-defined but require additional work prior to full implementation. The benefits of a phased approach with respect to EHP activities should be discussed with the applicant.

Consider splitting the project into two implementation subapplications. Though not appropriate for many projects, some scopes can be divided into two or more, separate projects if they are truly independent and do not require each other for success. For example, if one element has more complex or uncertain EHP requirements and the other qualifies under a categorical exclusion, separating the projects may allow the more straightforward body of work to advance more quickly. This approach requires that each project is eligible and independently provides the risk reduction benefits captured in the BCA. An example might be a large floodplain restoration where one small area has endangered species considerations, but the remainder does not.

Provide reasonable alternatives to the proposed work. Reviewers will want to understand other methods for achieving the project's risk mitigation goals as well as the ramifications of taking no action at all. These alternatives should be realistic and be analyzed at a reasonable level of detail, and should consider future projections of flooding, heat, wildfire risk, and other threats. The preferred alternative should stand above the others considered. Ideally, the preferred alternative would also have fewer EHP and community concerns as compared with alternatives not selected, though this may not always be the case.

11 FEMA. Program Support Materials: BRIC Phased Projects. Website. (Link)

12 Note that the time required for FEMA review between Phase 1 and Phase 2 does not count towards the 36-month project completion clock.

Make a project summary slide presentation. From the earliest days of concept development, maintaining a simple (e.g., 10 slide) project summary presentation that describes goals, assumptions, and supporting data can be invaluable to support conversations with the applicant, FEMA, and all other stakeholders. Including photographs, including aerial images, and news articles about the site, surrounding community, and past damages can help stakeholders build familiarity with the existing risks and proposed solutions. As new information is gathered and the project is refined, plan to update the presentation. Sharing this overview widely will help build a shared understanding of the proposed work and will garner more useful feedback and support.

Create Realistic Budgets

Creating accurate and informative budgets for subapplications is hard work and depends on having a detailed scope and approach. Even with this detail in hand, it is often prudent to include some cushion for unanticipated requirements that may arise during implementation, including EHP. Depending on the program, FEMA may not be able to add funds to a previously issued grant which means that overages become the responsibility of the subapplicant and non-federal cost share partners.

Determining a realistic budget that includes EHP activities will come from discussions with partners, subject matter experts, and federal agencies. When building your budget and timeline seek advice and estimates from experts who have completed similar work, though also be mindful of the non-conflict requirements discussed in the next section.

While not specific to EHP, incorporating adequate cost escalation assumptions to account for inflation is vital when preparing a subapplication budget. Final tasks may not be completed for five or more years after the subapplication budget is prepared when accounting for review, award, and implementation time. Considering inflation and other potential cost increases such as property value over the entire project period of performance will ensure that the budget is not underpowered. With large-scale NBS it is also important to consider availability of labor and supplies and the cost of resolving related shortages, especially in rural areas.

Pre-Award Cost Tracking

Many pre-award costs related to EHP compliance can qualify for reimbursement if a subapplication is awarded funding, though requirements do vary by FEMA program and should be carefully reviewed. The risk of pre-award costs is that they will not be reimbursed if the project is not approved and funded. Each subapplicant will have their own appetite for risk based on available funds and whether the project can move forward in other ways if the funds are not awarded by FEMA. Regardless of the magnitude of pre-award work, all costs – like staff and partner hours, rates, invoices, and more – should be tracked in detail. For contract-related expenses ensure that federal contracting standards are followed to increase the likelihood of reimbursement.[13] Particular to EHP, no ground disturbance should occur in pre-award activity until the EHP review is completed and funds awarded, as ground disturbance may make the project ineligible.

Realistic Timelines

As discussed previously, new concerns and requirements can arise in any part of a project but especially during EHP review and compliance activities. From a timeline perspective, creating some cushion for these unknowns may be more effective than crafting an overly prescriptive schedule without flexibility. Constant tweaks to a project timeline are cumbersome and can sometimes necessitate requesting extensions from FEMA and non-federal cost-share partners, all of which may add time, administrative burden, and risk to your project.

SEEK APPROVAL BEFORE DISTURBING THE GROUND

FEMA's requirements are clear that no ground disturbance should occur prior to an implementation project award. Such disturbance may result in rejection of the subapplication. If some limited disturbance is necessary to complete engineering analysis (e.g. soil studies) or complete EHP studies, the details should be discussed and approved by the applicant and FEMA prior to taking action.


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13 Code of Federal Regulations: Grants and Agreements. (Link)

III

Learn and Meet EHP Requirements

EHP Overview

During the project definition and subapplication development period (pre-award), it is the responsibility of the subapplicant to identify EHP requirements that may apply to the proposed project and plan necessary studies and mitigation/compliance activities. By their nature, landscape-scale NBS projects tend to have a larger geography and more 'moving parts' than many traditional HMA projects. As such, they can trigger a wide variety of regulations and requirements. For example, shoreline restoration can impact endangered species, water quality, migratory birds, wetlands, fisheries, and more. Projects near developed areas may be more likely to have historic preservation and environmental justice concerns as well as requirements for floodplains or farmland protection, among others.

Subapplicants should begin by identifying which EHP requirements may be relevant to the proposed project and then learning more about them. FEMA provides a full list of pertinent regulations and directives online, which are summarized in Appendix A: EHP-Related Laws, Regulations, and Executive Orders. Based on the project specifics, it will be clear whether certain requirements will or will not apply: a hazardous fuels reduction project in the mountains would clearly not intersect with requirements for coastal zone management or farmland protection, for example. Requirements that cannot be easily eliminated will require more research and discussion with the applicant, responsible state and federal agencies, and EHP consulting experts. In general, EHP issues will tend to break into the following high-level topics, each of which may be addressed by one or more regulations or directives:[14]

- **Biological resources:** Any identified federally listed threatened or endangered species and/or designated critical habitat potentially affected by the proposed project.
- **Water and biological resources:** Vegetation to be removed or affected.
- **Water resources:** Surface waters in the project area regardless of drainage area, size, or perceived hazard level.
- **Coastal resources:** Indication of whether the proposed project is located in a state's designated coastal zone or within a Coastal Barrier Resource System (CBRS) unit or other protected area (OPA).
- **Pollution control and debris management:** Identification of any hazardous or toxic materials that will be involved in the project.
- **Socioeconomic resources:** A description of any adverse effects on low-income or minority populations in the project area.
- **Historic or cultural resources:** Buildings, structures, objects, or manmade sites/landscape features that are 50 years or more in age.

14 FEMA. 2015. Hazard Mitigation Assistance Guidance. p71. (Link).

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With a moderate amount of research, the subapplicant will likely be able to find a significant amount of information through federal, state, and local resources such as endangered/threatened species lists, floodplain delineations, wetland classifications, geographic information systems (GIS) maps, and farmland designations. These materials will help to refine the EHP topics of concern and point to requirements for more detailed study and analysis.

Once the relevant requirements are identified, subapplicants should then determine the specific compliance activities, best practices, and required studies needed to minimize environmental and community impacts. This information can be gathered by reviewing guidance from each relevant agency or, ideally, scheduling one-on-one discussions with agency staff. The subapplicant should confirm whether gathered materials and assumptions are sufficient or whether additional data collection and analysis is recommended. For example, understanding if an endangered species inventory from several years prior is sufficient or whether a new inventory must be completed. The subapplicant should also ask whether a permit will be required for planned activities and, if so, clarify the steps and timeline for permit application and issuance.

15 California Office of Planning and Research. NEPA and CEQA : Integrating Federal and State Environmental Reviews. (Link)

STATE REQUIREMENTS

While the preceding discussion focused on federal requirements, the same process applies to understanding and complying with analysis, mitigation, and permitting requirements from state and local governments. For example, California requires compliance with the California Environmental Quality Act (CEQA). The CEQA process mirrors the NEPA review though there are some pertinent differences that have been outlined in a guidance document prepared by the State of California, "***NEPA and CEQA: Integrating Federal and State Reviews.***"[15] While this document explores the differences, the intent of each is to ensure that all environmental and historic preservation requirements within state and federal government are satisfied. Regardless of the project location and responsible applicant, it is prudent for the subapplicant to also engage with both state and local agencies before moving forward with a subapplication. This can help ensure state and local compliance requirements are met. These agencies may also be able to provide letters of support, which is a powerful artifact to include in the subapplication.

Available Technical Assistance

Subapplicants, especially those working in disadvantaged communities, will also want to ask whether each agency that has pertinent EHP requirements has technical assistance programs and/or funding to help complete necessary studies and prepare compliance documentation. Agencies are allocating more funds and staff resources to better assist communities with the burden of this technical work, especially for disadvantaged communities that may not have sufficient funds to cover initial costs (even if those costs might be reimbursed later). These programs may reduce compliance costs or bring needed expertise to which your community may not otherwise have access.

Exclusions

Regulations, laws, and executive orders may provide partial or complete exclusions for common, well-defined activities. Certain project types will be covered under a 'national' permit, categorical exclusion, or standardized programmatic environmental assessment (PEA). Regardless of the form, identifying exclusions or general permits that apply to the planned work can save a significant amount of time and effort. The relative newness and complexity of NBS means that fewer categorical exclusions are available than for traditional projects, such as building retrofits, though efforts are underway to increase the breadth and coverage of exemptions for common NBS activities. Another benefit of categorical exclusions is that they may help the EHP review process proceed more quickly. Though all exemptions are documented in regulations and supporting agency materials, they can be challenging to locate and decipher and may not apply in the event of some extraordinary conditions at the site. Importantly, qualifying for an exclusion does not automatically exempt your project from requirements of other laws or regulations. Asking about exemptions directly during one-on-one discussions with the applicant and with agency staff may be the most efficient path to understanding available opportunities.

ONE-ON-ONE DISCUSSIONS

When conducting research and meeting with local, state, and federal agency staff:

- Always keep detailed notes to track requirements and document next steps.
- Ask for guidance on compliance, best practices, exclusions, and programmatic permits that may be applicable to your project.
- Ask for suggestions regarding applicable supporting materials and experts who may help you define and advance your project.
- Regularly update the project summary presentation to reflect each discussion.


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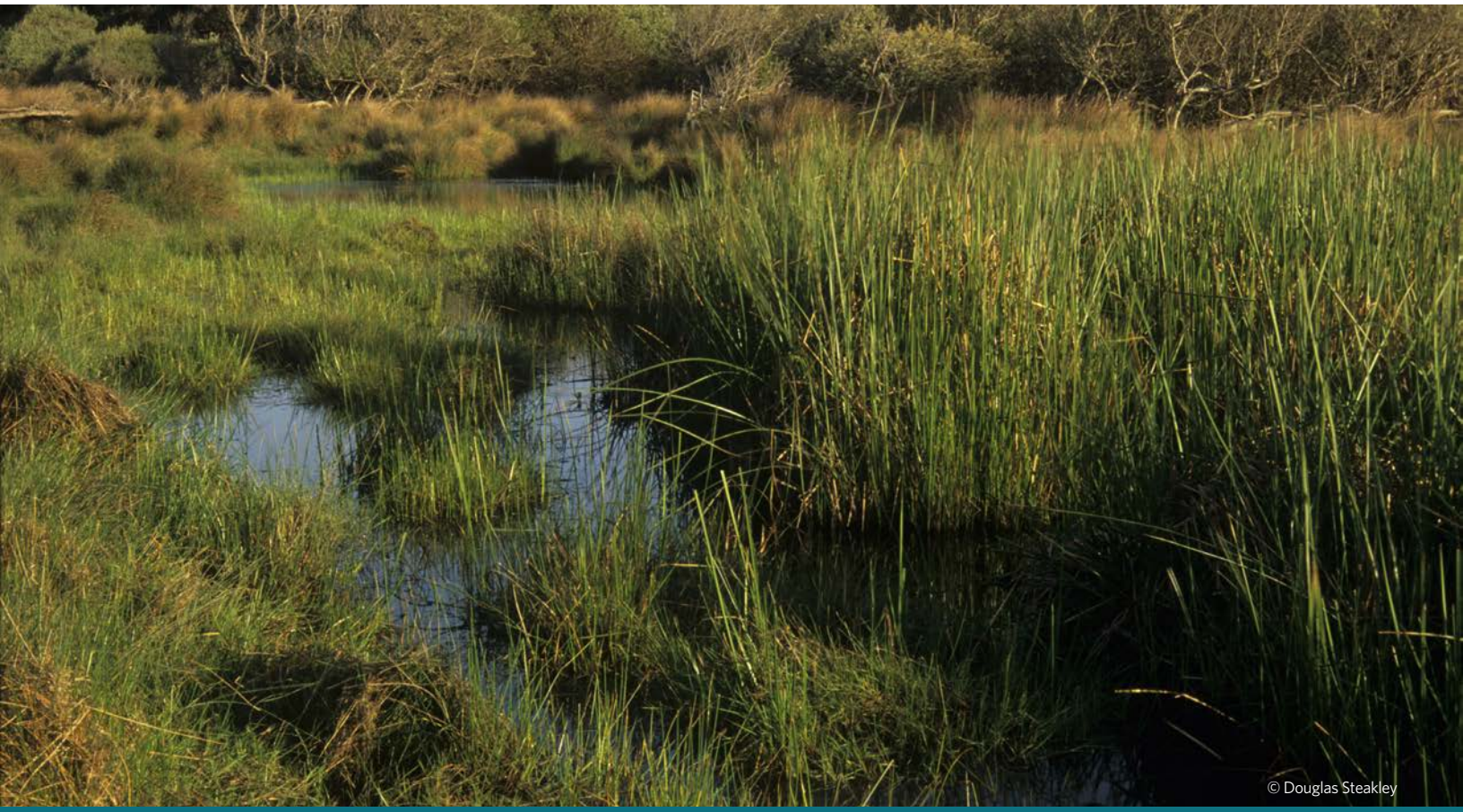
FEMA Regional EHP Review

During FEMA's formal review, regional EHP staff will verify that anticipated EHP concerns are fully addressed and determine which of three NEPA categories is applicable for the project. The NEPA categories are listed below in order of increasing effort and requirements for public engagement.

- **Categorical Exclusion (CATEX):** A categorical exclusion is a class of actions that FEMA has determined do not individually or cumulatively have a significant effect on the environment (human and natural) and for which, therefore, neither an environmental assessment nor an environmental impact statement is typically required.[16]
- **Environmental Assessment (EA):** An EA is completed to determine environmental impacts of project alternatives and to see if the project requires further in-depth analysis. The EA describes the existing environment, explains effects of the project and alternative actions, and identifies mitigation measures to avoid significant impacts on the human or natural environment. The EA will conclude that either the project does not significantly impact the environment, or that it requires more detailed analysis through preparation of an Environmental Impact Statement.[17]
- **Environmental Impact Statement (EIS):** An EIS is a detailed analysis and evaluation of impacts of the proposed project and all reasonable alternatives. This document provides more detailed and rigorous analysis than an EA and provides for additional public involvement and comment. An EIS is concluded with a decision document, the Record of Decision (ROD), that provides an explanation of the reasons for selecting a particular action and environmental mitigation associated with that action.[18]

FEMA may conduct or require additional analyses to augment work done by the subapplicant to verify findings and fill gaps in data needed to assess EHP compliance. Once this process is complete, which may take 12 months or more, FEMA will issue a determination as to whether the project is compliant with all EHP requirements. For examples of EA and EIS documentation, visit the National Environmental Policy Act (NEPA) Repository.[19]

16 FEMA. National Environmental Policy Act : FEMA Categorical Exclusions. Website. (Link)
17 FEMA. Anatomy of an Environmental Assessment. Website (Link)
18 FEMA. Environmental Planning and Historic Preservation: Environmental Assessments Tools and Templates. Website. (Link)
19 FEMA. Environmental Planning and Historic Preservation: National Environmental Policy Act Repository. Website. (Link)

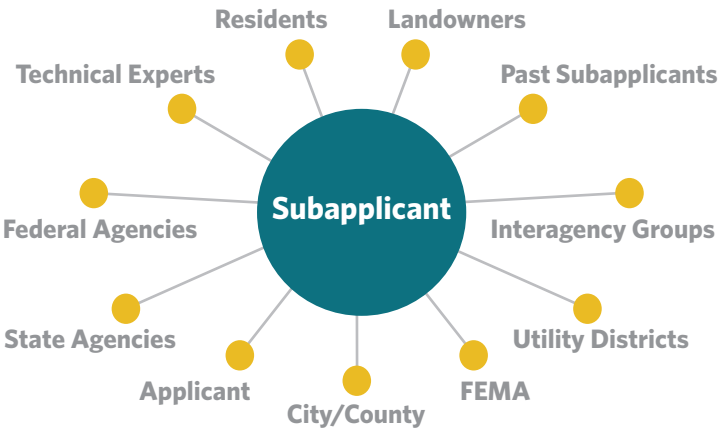


IV Successful Partner Engagement

This section describes methods and goals for engaging different stakeholders throughout the pre-award period. These organizations will support your project through planning and implementation – providing information, feedback, and funding along the way.

Nature-based solutions often cover a large geographic area and thus can involve multiple communities, agency jurisdictions, and landowners. Furthermore, projects that include features such as rivers, shorelines, and water supplies may engage stakeholders upstream, downstream, or otherwise removed from the immediate project location. As such, NBS projects are inherently complex and may require a higher level of engagement than single-site, traditional FEMA HMA projects such as home elevation or building modification. Early engagement between subapplicants and potential project partners and stakeholders is critical to building successful NBS projects and navigating the complex EHP landscape.

SUBAPPLICATION PARTNERS AND STAKEHOLDERS



Local Project Stakeholders

Local project stakeholders include landowners, local districts, community organizations, open space managers, and anyone else that will be directly involved in project implementation or that will be directly affected by the work. Subapplicants should conduct early and substantive engagement with these partners, oriented around the following goals:

- **Engender support and reduce future surprises.** NBS projects are often win-win endeavors that not only mitigate risk but provide other valuable benefits to local stakeholders. Since NBS and their many benefits may not be obvious to partners, plan for a substantial amount of education and awareness-building during the pre-award period. Specific to EHP, conversations about anticipated regulatory requirements, applicable studies that may be available, and experience with EHP compliance during past projects will all provide useful background and data for meeting requirements in your HMA subapplication and will support future conversations as you progress towards submittal. Tours and conversations on-site can be especially powerful to illustrate the risk and showcase the benefits of NBS. These conversations should help identify data and concerns early in the subapplication process, leaving time to thoroughly address any issues that are identified.
- **Take steps to understand and resolve controversy around project activities.** Reviewers will want to understand controversy related to project activities and steps the subapplicant has taken to address related concerns. From an EHP perspective, controversy suggests that a higher level of analysis may be required to satisfy concerns and may require that a full EIS be developed. Controversy may also create tactical considerations like lack of access to property required to conduct studies or complete implementation work. Additional effort required to resolve concerns during implementation may extend timelines and strain budgets. Controversy may also indicate to FEMA that the project has a higher risk of failure during implementation. Being transparent with the applicant and other stakeholders about the project and potentially divisive issues and steps taken to resolve them is a indicator of thoroughness that will result in better advance guidance on how to manage risks and meet requirements; this work also signals a mature and considered project development approach that may reduce the likelihood of controversy appearing unexpectedly later in the process.
- **Document conversations and collect supporting artifacts.** Subapplications that demonstrate the support of and engagement with multiple partners are are stronger than those that do not. Whether through letters of support, cooperative planning, or data sharing, documenting these relationships and support can be valuable throughout the proposal development process. Artifacts that support EHP requirements are especially valuable such as documentation of water rights, information on historical buildings and features, or local wildlife/ecosystem surveys. A small, time-saving step is to secure 'right-of-entry' approval with private landowners to allow EHP reviewers to access relevant sites to verify plans or conduct additional environmental study during the FEMA review. Securing this access ahead of time may avoid future delays. As with all pre-award work, the more materials that can be identified and gathered early in the process, the better, as it leaves more time for informed discussion and decision-making.

Technical Experts

Finding and engaging experienced technical experts is often a vital step in building an effective NBS proposal. However, since this type of risk mitigation is relatively new and best practices are changing quickly, the pool of experienced NBS experts is relatively small. When considering how and when to engage with NBS and EHP subject matter expertise, care should be taken to not violate FEMA contract support requirements.[20] In short, paid contract experts are not allowed to participate in both application preparation and project implementation. While the requirements do allow for certain types of interactions pre- and post-award, such as using cost estimates from past work, it is critical that you review the requirements and confer with the applicant team to avoid inadvertently eliminating a key expert from participating in your implementation project.

20 FEMA. Job Aid: Using Contract Support for the Development of Hazard Mitigation Assistance Grant Applications. Website. (Link)

Applicant Meetings

Often the best guidance for preparing effective applications will come from the applicant (state, territory, or federally-recognized Tribe) that acts as an interface between the subapplicant and each FEMA region. The applicant provides information and sets priorities for local HMA activities and has the most current knowledge of local precedents and pending subapplications within the region. The applicant may also be familiar with the ecosystems involved and common EHP challenges within the area, such as water rights or endangered species. Based on experience with previous subapplications, the applicant can provide guidance on the level of detail and study required, best practices, and common pitfalls. Best practices for subapplicant meetings include:

- **Meet early and regularly.** Applicant staff and their contract support, if any, are typically available to meet and discuss project details and provide guidance on crafting a successful subapplication. The applicant's goal is to help the subapplicants prepare competitive proposals that will bring HMA funds to the region. Share your project summary presentation with a simple, clear description of your project, partners engaged, EHP assumptions, and anticipated issues/opportunities with the applicant. After each meeting record notes, update project plans and supporting documentation, and revise the project summary presentation based on their guidance.
- **Probe EHP requirements and their associated studies.** One of the challenges of EHP compliance is the level of documentation and study necessary to meet requirements. Sharing results of prior agency meetings and expert consultations that inform your approach is important, as is asking your applicant team whether they have other concerns or suggestions based on the experiences of past subapplicants. Work with the applicant to identify the appropriate level of EHP budget and effort required to mitigate environmental or community concerns—not too much, not too little—to ensure a strong subapplication and a clear path to EHP compliance without breaking the bank.
- **Confirm that the materials found online are current and appropriate for your project.** FEMA Headquarters, each FEMA region, the applicant, and some private entities all produce useful written guidance, recorded seminars, and live events to help subapplicants succeed. The challenge for NBS projects and especially their EHP components is that – while still valuable – much of the guidance available focuses on traditional project types. Be aware that outdated documents and resources may occasionally appear on agency or third-party sites. Sharing documents found and asking the applicant and other agencies whether they are the most current and useful is a good practice. A partial list of resources is included below in Appendix C – EHP Pre-Award Resources.
- **Get on the applicant's mailing list(s).** The applicant may maintain a mailing list that highlights upcoming events and important application details like submittal deadline changes. Asking to be added to this distribution list is critical. The applicant may also host an email hotline to answer questions about the subapplication process.

Engage with FEMA Regional Staff

For most HMA projects, FEMA will act as the lead agency responsible for NEPA review and confirming the subapplicant's EHP compliance. As needed, FEMA will initiate formal and informal consultations with other federal, state, local, and Tribal regulatory and permitting agencies to review materials and resolve outstanding issues. It is worth noting that FEMA may occasionally transfer the EHP review to another agency such as U.S. Army Corps of Engineers (USACE) depending on the project details and agency responsibilities.

During the pre-award phase, FEMA regional staff cannot confer advantage to one subapplicant over another by providing detailed project review or critique. They may however be able to provide specific but limited guidance regarding the types of studies and assets needed for EHP review, either directly to the subapplicant or via consultation with the applicant. Despite these restrictions borne from the need for FEMA to remain an impartial reviewer, it may be helpful for you to reach FEMA directly or through the applicant to seek clarity for outstanding questions regarding EHP activities.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Identify Inter-Agency Working Groups

Federal and state agencies have created collaborative partnerships oriented around specific topics and geographies to streamline interactions and speed approvals for program applicants. Identifying an inter-agency group in your project area can save time and effort by providing an invaluable, one-stop source for detailed requirements, data, and best practices. The following work groups in California exemplify this approach and opportunity.

- **San Francisco Bay Restoration Regulatory Integration Team (BRRIT):** BRRIT was formed to improve the permitting process for multi-benefit habitat restoration projects and associated flood management and public access infrastructure in the San Francisco Bay and along the shoreline of the nine Bay Area counties. BRRIT includes USACE, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service, San Francisco Bay Regional Water Quality Control Board, California Department of Fish and Wildlife, and the San Francisco Bay Conservation and Development Commission.[21]
- **California Silver Jackets:** The California Silver Jackets team brings together federal, state, and regional/local agencies to focus on the state's priorities for flood risk management. The program is led by the California Department of Water Resources and empowered and supported by USACE. Other agencies participating include FEMA, NOAA, U.S. Bureau of Reclamation, U.S. Department of Agriculture–NRCS, and U.S. Geological Survey.[22]
- **Southern California Wetlands Recovery Project (WRP):** WRP consists of directors and staff of 18 public agencies coordinating with each other regarding the protection, restoration, and enhancement of California's coastal wetlands and watersheds between Point Conception and the Mexican border.[23]

These partnerships, along with other similar groups not listed here, may provide additional information, guidance, and access to facilitate your subapplication.

Engage with Current and Past Subapplicants

Find and connect with leaders of similar projects in your state and nationally. One of the most frequent requests by subapplicants is for case studies. The reality is that there are not many case studies with sufficient detail to inform project design and planning, especially around EHP. Time spent asking agencies, partners, and consultants for suggestions about who has implemented similar projects – with or without FEMA funding – is valuable. Projects need not be specific to risk mitigation as other riparian and floodplain restoration, shoreline restoration and forest management projects may contain valuable lessons, design characteristics, and underlying studies or data that inform your EHP planning.

21 San Francisco Bay Restoration Authority. About the San Francisco Bay Restoration Regulatory Integration Team (BRRIT). Website. (Link)
22 Silver Jackets: California. Website (Link)
23 Southern California Wetlands Recovery Project. Website (Link)

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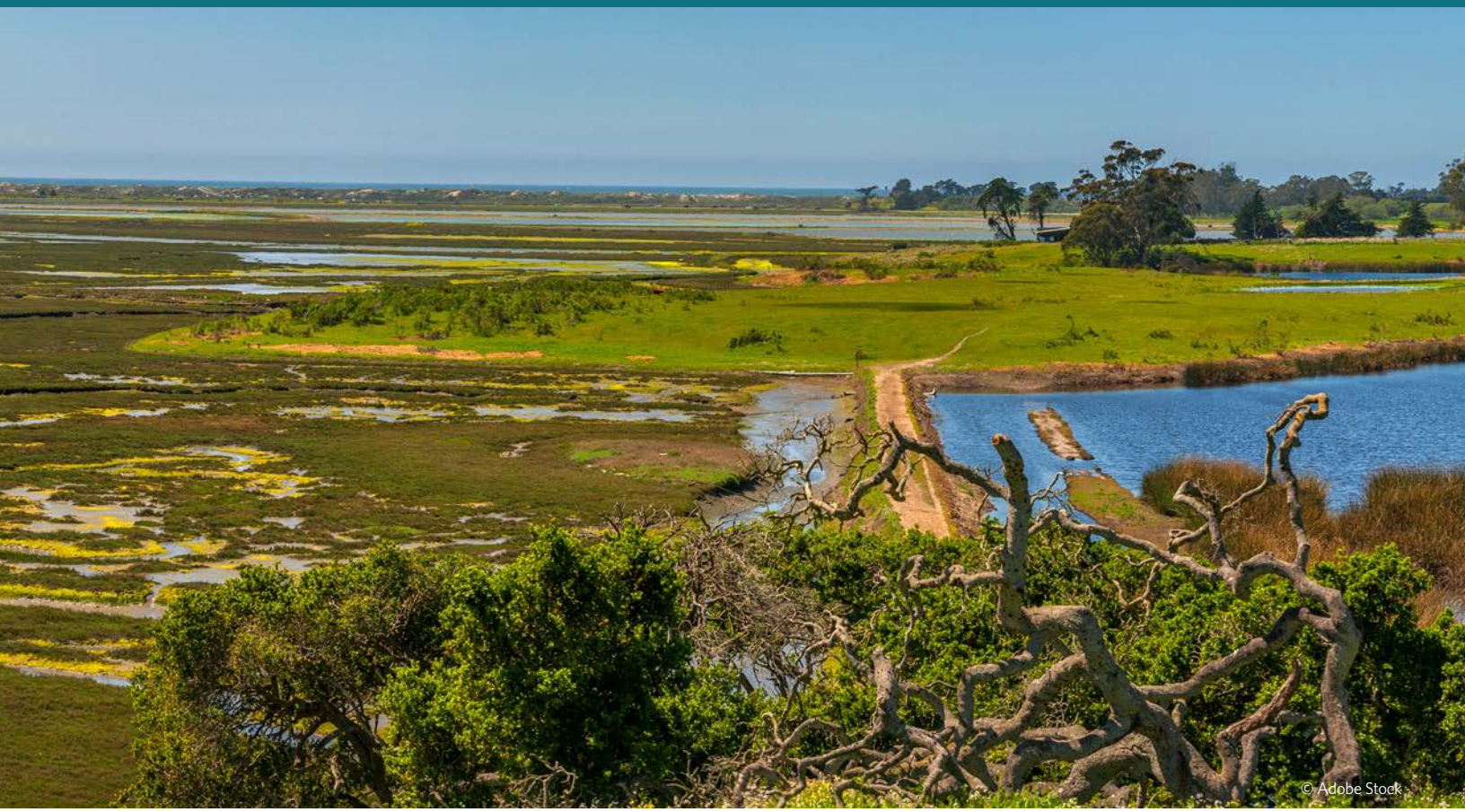
Conclusion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Each of the thirty or more laws and executive orders that address EHP requirements and activities are complex in their own right; considering them simultaneously can be daunting as you strive for EHP compliance for your subapplication, especially for innovative NBS. Though every project has unique challenges that cannot be anticipated, following the practices described in this primer can increase efficiency, reduce risk, and provide clarity on the subapplication process, especially regarding EHP requirements. Connecting early with partners, asking lots of questions, and being pragmatic about the time and cost of compliance can make the process smoother and increase the likelihood of subapplication approval. While the guidance provided here will send subapplicants in a good direction, requirements and precedents are constantly changing so there is no replacement for early, sustained, and purposeful engagement with agencies, peers, and technical experts to gather the latest best practices and connect with projects that have been successful in the recent past.

The following appendices provide additional resources and background information for EHP and HMA more generally.

APPENDIX A – EHP-RELATED LAWS, REGULATIONS, AND EXECUTIVE ORDERS provides a summary of each of the policies and laws that currently make up EHP.

APPENDIX B – FEMA EHP CHECKLIST shares common EHP questions and characteristics that every subapplicant should review.

APPENDIX C – EHP PRE-AWARD RESOURCES is a non-exhaustive list that offers for useful compliance tools and guidance.

APPENDIX D – RELEVANT CATEGORICAL EXCLUSIONS FOR NBS lists NEPA categorical exclusions that may apply to various project types and components to provide a starting point for further discussion with partners and the applicant.

APPENDIX E - ACRONYMS AND TERMS

APPENDIX A: EHP-RELATED LAWS, REGULATIONS, AND EXECUTIVE ORDERS[24]

American Indian Religious Freedom Act of 1978 (AIRFA)

The American Indian Religious Freedom Act (AIRFA) protects and preserves for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites. Learn more at gpo.gov.

Archeological and Historic Preservation Act of 1974 (AHPA)

The Archeological and Historic Preservation Act provides for the preservation of cultural resources that may be damaged by federal or federally-authorized construction activities. It also requires that the Secretary of Interior be notified when unanticipated archeological materials are discovered during construction of a federal undertaking. Learn more at nps.gov.

Archeological Resources Protection Act of 1979 (ARPA)

The Archaeological Resources Protection Act of 1979 (ARPA) was enacted to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals. Learn more at nps.gov.

Clean Air Act (CAA)

The Clean Air Act regulates air emissions from area, stationary and mobile sources. This law authorizes the U.S. Environmental Protection Agency to establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment. The 1990 amendments to the Clean Air Act in large part were intended to meet unaddressed or insufficiently addressed problems such as acid rain, ground-level ozone, stratospheric ozone depletion and air toxics. Learn more at epa.gov.

Clean Water Act (CWA), 1948 as amended 1966, 1972, Section 10 Rivers and Harbors Act (RHA), 1899

CWA establishes permit requirements to prevent unauthorized obstruction or alteration of any navigable water of the United States. The most frequently exercised authority is contained in Section 10 (33 U.S.C. 403), which covers construction, excavation, or deposition of materials in, over or under such waters or any work that would affect the course, location, condition or capacity of those waters. Actions requiring Section 10 permits include structures (e.g., piers, wharfs, breakwaters, bulkheads, jetties, weirs, transmission lines) and works such as dredging or disposal of dredged material or excavation, filling, or other modification to the navigable waters of the United States. The Coast Guard also has responsibility for permitting the erection or modification of bridges over navigable waters of the U.S.

In 1972, amendments to the Federal Water Pollution Control Act added what is commonly called Section 404 authority (33 U.S.C. 1344). The Secretary of the Army is authorized to issue permits for the discharge of dredged or fill material into waters of the United States. Learn more at epa.gov.

Coastal Zone Management Act (CZMA)

The Coastal Zone Management Act (CZMA) supports the nation's coastal resources, including the Great Lakes. The goal is to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone." Learn more at noaa.gov.

Coastal Barriers Resources Act (CBRA)

The Coastal Barrier Resources Act (CBRA) of 1982 and subsequent amendments were enacted to remove the federal incentive to develop designated relatively undeveloped coastal barriers along the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and Puerto Rico coasts as part of the John H. Chafee Coastal Barrier Resources System (CBRS) and made these areas ineligible for most new federal expenditures and financial assistance. Learn more at fws.gov.

(continues...)

24 Current as of 3/25/22

Endangered Species Act (ESA)

The Endangered Species Act (ESA) ensures that federal agencies and departments use their authorities to protect and conserve endangered and threatened species. Section 7 of the Act requires that federal agencies prevent or modify any projects authorized, funded, or carried out by the agencies that are "likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of critical habitat of such species."

Under Sections 9 and 20 of the Act, non-federal entities, governments, and private citizens, even without involvement of a federal agency, also must avoid adversely affecting threatened or endangered species. Where adverse impacts cannot be avoided state and local governments and private landowners must develop Habitat Conservation Plans in coordination with the U.S. Fish and Wildlife Service or National Marine Fisheries Services to reduce conflicts between listed species and development activities. Learn more at fws.gov.

Farmland Protection Act (FPA)

The FPA minimizes the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses and to assure that federal programs are administered in a manner that, to the extent practicable, will be compatible with state, local and private programs and policies to protect farmland. Learn more at USDA.gov.

Fish and Wildlife Coordination Act (FWCA)

The Fish and Wildlife Coordination Act (FWCA) was enacted to protect fish and wildlife when federal actions result in control or modification of a natural stream or body of water. The statute requires federal agencies take into consideration the effect that water-related projects would have on fish and wildlife resources and provide for the development and improvement of these resources. Learn more at fws.gov.

National Environmental Policy Act

Passed in 1970, NEPA is a federal law that established a national policy for the protection and maintenance of the environment. NEPA provides a broad planning process that requires all federal agencies to ensure that it has considered the effects of their action on the environment and made information available to the public before deciding to fund and implement a proposed action. More information at epa.gov.

National Historic Preservation Act

The National Historic Preservation Act (NHPA) directs federal agencies to consider the effect of any undertaking on historic properties. "Historic property" is any district, building, structure, site, or object that is eligible for listing on in the National Register of Historic Places because the property is significant at the national, state, or local level in American history, architecture, archeology, engineering, or culture. Typically, a historic property must be at least 50 years old and retain integrity. More at nps.gov.

Native American Graves and Repatriation Act of 1990 (NAGPRA)

The Native American Graves and Repatriation Act was initially enacted in 1990 to establish the rights of Indian tribes and their descendants to obtain repatriation of certain human remains, funerary objects, sacred objects, and objects of cultural patrimony from federal agencies and museums. Learn more at nps.gov.

Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act manages the generation, transportation, treatment, storage, and disposal of hazardous waste. Learn more at epa.gov.

Wild and Scenic Rivers Act (WSRA)

The purpose of the Wild and Scenic Rivers Act (WSRA) is to preserve the free-flowing state of rivers that are listed in the National Wild and Scenic Rivers System or under study for inclusion in the System because of their outstanding scenic, recreation, geologic, fish and wildlife, historic, cultural, or other similar values. Rivers in the System are classified as wild river areas, scenic river areas or recreational river areas. The WSRA established requirements applicable to water resource projects and protects both the river or river segments and the land immediately surrounding them. Learn more at rivers.gov.

Wilderness Act (WA)

The Wilderness Act establishes a system of National Wilderness areas and a method to protect and manage this system. With a few exceptions, this act prohibits motorized equipment, structures, installations, roads, commercial enterprises, aircraft landings and mechanical transport. Learn more at nps.gov.

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Executive Order 11988: Floodplain Management, 1977

Executive Order 11988 requires federal agencies to avoid, to the extent possible, the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities" for the following actions: 1)Acquiring, managing and disposing of federal lands and facilities; 2) Providing federally-undertaken, financed or assisted construction and improvements; 3) Conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation and licensing activities. Learn more at epa.gov.

Executive Order 11990: Protection of Wetlands, 1977

The purpose of this EO is to "minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands." The Order requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. The procedures require the determination of whether the proposed project will be in or will affect wetlands. If so, a wetlands assessment must be prepared that describes the alternatives considered. Learn more at epa.gov.

Executive Order 12898: Environmental Justice for Low Income & Minority Populations, 1994

This Executive Order directs federal agencies to make achieving environmental justice part of its mission by identifying and addressing disproportionately high adverse human health or environmental effects of its activities on minority and low-income populations. Agencies are further directed to identify potential effects and mitigation measures in consultation with affected communities. Learn more at epa.gov.

Executive Order 13007: Indian Sacred Sites, 1996

Executive Order 13007 directs federal land managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites. Learn more at federalregister.gov.

Executive Order 13690, Establishing a Federal Flood Risk Management Standard (FFRMS)

The FFRMS was established to encourage federal agencies to consider and manage current and future flood risks to build a more resilient nation. It requires agencies to prepare for and protect federally funded buildings and projects from flood risks. Learn more at fema.gov.

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APPENDIX B: FEMA EHP CHECK LIST[25]

The following Yes/No questions help to identify which requirements may apply to the subapplicant's project. (Note: FEMA is in the process of releasing a series of job aids that will provide substantially more detail particular to each hazard type, such as flood risk reduction. Some of these new job aids are linked in Appendix C – EHP Pre-Award Resources but new ones are expected in the future.)

National Historic Preservation Act

- 1.A Would the proposed project affect, or is the proposed project in close proximity to, any buildings or structures 50 years or more in age?
- 1.B Will the proposed project involve disturbance of ground?

Endangered Species Act and Wildlife Coordination 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 or near (within 200 feet), or likely to affect, any type of waterbody?

Clean Water Act, Rivers and Harbors Act

- 3.A Will the proposed project involve dredging or 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 on 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 100-year floodplain, a 500-year floodplain (if a critical facility), 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? The 8-step process summarized in Appendix J must be completed.

Coastal Zone Management Act

- 5.A Is the proposed project located in the State's designated coastal zone?

Farmland Protection Policy Act

- 6.A Will the proposed project convert more than 5 acres of "prime or unique" farmland outside city limits to a non-agricultural 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 are 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?

25 FEMA. EHP Checklist. (Link)

APPENDIX C: EHP PRE-AWARD RESOURCES

This list is not comprehensive but provides useful links and resources to research EHP requirements and discover additional supporting materials and data.

FEMA

- Hazard Mitigation Assistance Job Aids. A collection of detailed guidance documents for specific mitigation activities. Use the search term "Information Required for Environmental Review" (Link) to identify EHP-specific materials. Of specific interest are guides currently available for wildfire (Link) and flood (Link). More guides are anticipated.
- Building Community Resilience with Nature-Based Solutions: A Guide for Local Communities. (Link)
- Hazard Mitigation Assistance Guidance (2015). Though dated, this document offers the most detailed HMA program guidance. An update is anticipated. (Link)
- EHP Helplines: (866) 222-3580 or ehphelpline@fema.dhs.gov

Other Sources

- NOAA. Compendium of Federal Nature-Based Resources for Coastal Communities, States, Tribes, and Territories. 2022. (Link)
- NOAA. Green Infrastructure Effectiveness Database. (Link)
- U.S. Fish and Wildlife Service: Information for Planning and Consultation. (Link)
- U.S. Army Corps of Engineers: Obtain a Permit. (Link)
- EPA/USACE Clean Water Act Section 401 Certification. More information can be found in EPA's Overview.
- Advisory Council on Historic Preservation: Application Toolkit. This resource provides details and steps for compliance. (Link)
- State agencies within FEMA Region IX that may provide resources, seminars, and consultations for subapplicants. Tribes and territorial governments may also provide additional information and should be contacted directly.
  - Arizona Department of Emergency and Military Affairs – Emergency Management
  - California Office of Emergency Services (CalOES) – Hazard Mitigation
  - Hawaii Emergency Management Agency
  - Nevada Division of Emergency Management


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APPENDIX D: RELEVANT CATEGORICAL EXCLUSIONS FOR NBS

NEPA provides implementing agencies with the opportunity to define categorical exclusions (CATEX) for activities that are likely to result in low levels of impact to the environment and community. Though qualifying under a CATEX is dependent on each site and project and may not apply in the event of extraordinary circumstances, the following exclusions may apply to flood and wildfire projects. The full list of FEMA CATEX along with additional detail can be found in the ***Instruction Manual 023-01-001-01, Revision 01: Implementation of the National Environmental Policy Act (NEPA) – Appendix A.*** (Link)

FLOOD HAZARD REDUCTION	
CATEX N4	Actions Involving Stream Work and Modification and Floodways
CATEX N5	Actions in Coastal Areas subject to Moderate Wave Action or V Zone
CATEX N6	Relocation/Realignment of Structures and Facilities
CATEX N9	Flood Hazard Reduction Actions

WILDFIRE HAZARD REDUCTION	
CATEX N7	Upgrades to Existing Facilities
CATEX N11	Wildfire Hazard Mitigation Actions
CATEX N12	Planting of Indigenous Vegetation


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APPENDIX E: ACRONYMS AND TERMS

APPLICANT	The organization that leads hazard mitigation activities, solicits local proposals, and acts as the main conduit of competitive proposals to the FEMA region. This role can be played by a state (often the office of emergency services), territory, or federally recognized Tribe.
BCA	Benefit-Cost Analysis
BCR	Benefit-Cost Ratio
CATEX	Categorical Exclusion
EA	Environmental Assessment
EHP	Environmental and Historic Preservation
EIS	Environmental Impact Statement
FEMA	Federal Emergency Management Agency
GRAY INFRASTRUCTURE	Highly engineered risk mitigation approaches such as culverts, levees, and pumps.
H&H	Hydrology and hydraulic studies to determine the flow of water and intervention effect
HMA	Hazard Mitigation Assistance
HMGP	Hazard Mitigation Grant Program
NBS	Nature-Based Solutions
PEA	Programmatic Environmental Assessment
SUBAPPLICANT	Subapplicants may be any federally recognized Tribe, local government, state agency, or non-profit (for certain HMA programs) that seeks to define and implement a mitigation project with funding from FEMA.

ABOUT THIS GUIDE

This guide was funded through The Nature Conservancy's Cooperating Technical Partners grant from FEMA Region IX with the goal of helping communities develop and advance hazard mitigation projects that incorporate nature-based solutions. The team reviewed existing support and educational materials and conducted numerous interviews with subapplicants and subject matter experts.

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- Sonoma Land Trust
- Waterwise Consulting