

Appendix A: Analysis of 2020 Coastal Hazards Resilience Grant Programs

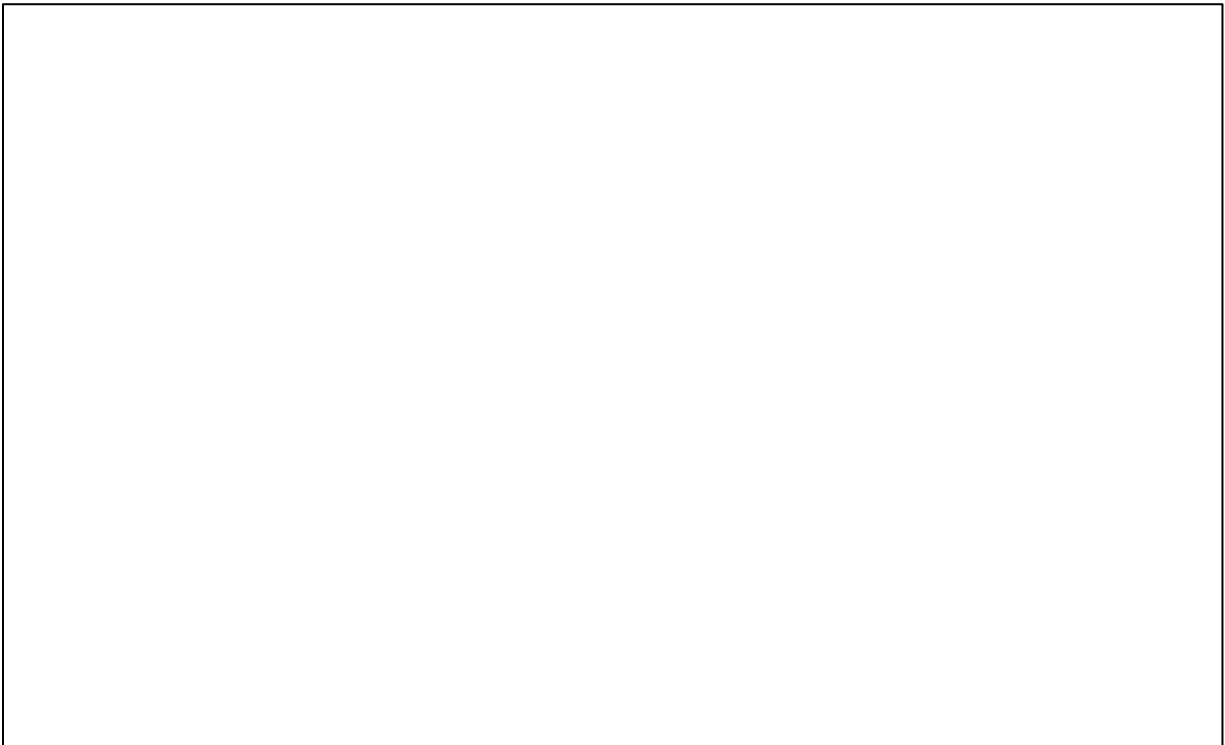
Washington Coast Resilience Action Demonstration Project

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&

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Seattle, WA

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The Resilience Action Demonstration Project (RAD) was a 24-month (2019–2021) pilot program that enhanced local capacity to address coastal hazards issues across Washington’s Pacific Coast. The RAD team tested the logistics of the proposed inter-agency Coastal Hazards Organizational Resilience Team (COHORT) and gathered lessons learned for the implementation of a long-term COHORT initiative. In doing so, the RAD team advanced community-driven hazards resilience projects by connecting communities with scientific and technical expertise, coordinated agency support, and funding. Through research, outreach, and targeted support for locally driven projects, the RAD team identified strategies for improving and better coordinating state hazards assistance to Washington’s coastal communities, in service of long-term pre-disaster risk reduction and resilient communities.

The RAD was conducted as a partnership between Washington’s Coastal Zone Management Program, housed at the Washington State Department of Ecology, and Washington Sea Grant. Many partners and collaborators were instrumental in the success of the RAD. They are listed in the acknowledgments section of the final report.

A Coastal Zone Management Project of Special Merit grant from the NOAA Office for Coastal Management (grant #NA19NOS4190144) provided primary funding for the RAD.

Additional information about the report and its appendices can be found on the [RAD webpage](#),¹ which is hosted by the Washington Coastal Hazards Resilience Network.

Appendix A cover image credit: Sonni Tadlock / Washington Department of Ecology, 2019

¹ <https://wacoastalnetwork.com/resilience-action-demonstration-project/>

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Introduction

Purpose of the grant program analysis

During the early stages of the Resilience Action Demonstration Project (RAD), the Washington Department of Ecology and Washington Sea Grant conducted an analysis of state and federal funding programs available in 2020–2021 that provide funding for coastal hazards resilience- and mitigation-related efforts. The goal of the analysis was to inform the process of scoping and developing RAD-supported coastal hazards resilience projects to ensure their eligibility and competitiveness in relevant grant programs. This analysis provides a brief overview of each funding program and identifies common approaches, priorities, and characteristics of these programs. This analysis also identifies gaps and other general takeaways that emerged from this review.

The RAD team used the results of this funding analysis to aid in the RAD outreach process and corresponding analysis (Appendix B), the drafting of the RAD resilience project principles (Appendix D), and the support provided by the team to assist communities in developing and submitting coastal hazards resilience project proposals (Appendix E). Results of this study also contributed to other objectives of the RAD, including the formation of recommendations made by the Washington Coastal Marine Advisory Council (WCMAC) to the Governor’s Office.

Methods

The grant program analysis examines a selection of widely known state and federal grant programs that fund preventative hazards resilience projects. We narrowed our focus to programs that solicit proposals that target a community's vulnerability to hazards rather than the vulnerability of ecological systems alone.

Seven programs are included in this analysis:

- Bureau of Indian Affairs (BIA) Tribal Resilience Program Planning Grants
- FEMA Building Resilient Infrastructure and Communities (BRIC)
- Floodplains by Design (FbD)²
- National Fish and Wildlife Foundation (NFWF) National Coastal Resilience Fund
- NOAA Coastal Resilience Program (now inactive)³
- NOAA Environmental Literacy Program (ELP)
- Washington Coast Restoration and Resiliency Initiative (WCRRI)

To compare the grant funding programs to one another, we analyzed program objectives and principles as well as the evaluation and selection criteria. We also used other program requirements (such as project proposal templates) to gain additional insight into the programs.

The analysis was conducted from March–July 2020 in order to inform the subsequent objectives of the RAD. For this reason, this analysis examined grant funding programs available in 2020, as well as one grant funding program that is now inactive but still provides a helpful indication of common criteria used to assess coastal hazards resilience grant proposals.

The following three sections of this analysis address project types, the project life cycle, and project characteristics. We conclude with several additional key takeaways from the analysis that also informed the subsequent stages of the RAD effort.

² Although Floodplains by Design targets riverine flooding, it was included in this study because it provides an example of a successful Washington State grant funding program that emphasizes innovative, collaborative, and multi-benefit resilience projects.

³ The NOAA Coastal Resilience Program is now inactive and has since been replaced by the NFWF National Coastal Resilience Fund. It was included in this analysis because it nonetheless provides a useful model for outlining project types and resilience criteria, and demonstrates points of emphasis often prioritized by NOAA funding programs.

Funding Program Summaries

This section of the report briefly summarizes each of the funding programs that were included in the analysis. For each program, a general overview, eligibility information, requirements for matching funds, and important takeaways are provided. For more detail about each funding program, including the applicant eligibility and matching requirements, visit the links provided at the bottom of each program summary.

This analysis covers grant programs' funding opportunities available in 2020. In the time since this analysis was completed for the RAD in July 2020, revised 2021 funding opportunities were released for several of these grant programs. Some of the most consequential changes for 2021 are described in footnotes throughout the sections of this document.

Bureau of Indian Affairs (BIA) Tribal Resilience Program Planning Grants⁴

Overview

“Tribal Resilience Awards will be made to projects that address vulnerability to extreme events and harmful environmental trends through development of regionally focused or topically focused training, adaptation planning and data development, and travel to access training and attend technical workshops to build skills and capacity.”

– 2020 Request for Proposals, page 3

Eligible activities⁵

Only Tribes and Tribal organizations are eligible for this grant program. Activities covered within this program are divided into four categories:

- Adaptation Planning
- Ocean and Coastal Management Planning
- Capacity Building
- Planning for Relocation, Managed Retreat, or Protect-in-Place.

Though Capacity Building is listed as a distinct category, it is also included in scoring criteria throughout the grant and is a central focus of the program.

Matching requirements

There are no matching fund requirements for any of the funding program categories. However, a small amount of supplemental points are awarded if an applicant is able to contribute funds toward the budget.

⁴ As of 2021, this program is known as the Bureau of Indian Affairs Tribal Climate Resilience Program.

⁵ The eligible categories for this funding program have changed for 2021. A new category has been added, titled “Internships and Youth Engagement.”

Takeaways

This program stands out from others in this study because it awards funds exclusively to Tribes and Tribal organizations to conduct resilience and adaptation planning or to carry out other capacity building and training activities. The funding program's Ocean and Coastal Management Planning category is the only category that allows for the implementation of previously established plans.

Links

- Website: <https://www.bia.gov/bia/ots/annual-awards-program>
- Request for Proposals (2020):
https://www.bia.gov/sites/bia.gov/files/assets/bia/ots/tcrp/FY2020TRPAwards_RFP.pdf

FEMA Building Resilient Infrastructure and Communities (BRIC)⁶

Overview

“For Fiscal Year 2020, the priorities for the program are to incentivize public infrastructure projects; incentivize projects that mitigate risk to one or more lifelines; incentivize projects that incorporate nature-based solutions; and increase funding to applicants that facilitate the adoption and enforcement of the latest published editions of building codes.”

– 2020 Notice of Funding Opportunity, page 3

Eligible activities

BRIC provides support for the following project categories:

- Capability and Capacity-Building Activities (C&CB)
- Mitigation
- Management Costs
- Technical Assistance (non-financial support)

Matching requirements

Cost share is required for all proposals funded under this program. The cost share for most applicants is 75 percent federal / 25 percent non-federal. Small, impoverished communities are eligible for an increase in cost share up to 90 percent federal / 10 percent non-federal.

⁶ The BRIC program was still in development while this study was being conducted. It was released in fall 2020. Analysis of the BRIC program in this section and subsequent sections is based on [FEMA Proposed Policy: Hazard Mitigation Assistance: Building Resilient Infrastructure and Communities](#).

Takeaways

The total available funding for the Federal Fiscal Year 2021 funding opportunity is \$500,000,000. Depending on the project, Technical Assistance and Capability and Capacity-Building Activities (C&CB) categories can be viewed as sequential phases in the life of a physical project. C&CB projects may also be considered stand-alone projects depending on the intended outcome.

Standalone C&CB projects can only be submitted via the state/territory or Tribal set-aside categories. Each state or territory is allocated a maximum of \$600,000 to be used for C&CB activities and/or mitigation projects. The national competition, for which \$446,400,000 is allocated, only accepts proposals for mitigation projects. However, 10 percent of an application budget can be used for information dissemination activities.

To qualify as a small impoverished community, a community must have a population of 3,000 or fewer, with residents having an average per capita annual income that is less than or equal to 80 percent of the average national per capita income.

Links

- Website: <https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities>
- Notice of Funding Opportunity (2020): https://www.fema.gov/sites/default/files/2020-08/fema_fy20-bric-notice-of-funding-opportunity_federal-register_August-2020.pdf

Floodplains by Design (FbD)

Overview

“The FbD grant program seeks to advance integrated floodplain management strategies and projects that consider a broader variety of ecological functions, values, and benefits to the affected human communities. Projects can have a higher likelihood of success when they improve ecological function, reduce flood risk, and meet other community needs because they are more likely to garner the necessary community support and public funding.”

– Funding Guidelines, page 7

Eligible activities

FbD funds physical projects in riverine settings and emphasizes the need for innovative and integrated management within those settings. The program is deliberately flexible in how applicants meet program criteria because the intent is to expand applicants’ thinking and move beyond the traditional approach of implementing one short-term project at a time.

FbD provides funding for certain pre-construction activities (such as reach studies, area-specific analyses, environmental reviews, and other work that leads to the identification of capital projects), feasibility and design projects, and construction projects. FbD will also provide funding for land acquisition, land conservation, easement purchase, residential buy-outs and

relocation costs, riparian and wetland restoration, project specific outreach and education, and activities that characterize, identify, or quantify the existing conditions of a project site before and after a project's completion (though only if these analyses take place within the grant period).

Matching requirements

Projects require a 20% match, although the program offers flexibility for project applicants to demonstrate this match. Match can be demonstrated in the form of other grant funds, value of land acquired for the project, time spent working on a project, and in-kind donations and volunteer services. Economically Distressed Communities will have their match requirement waived.

Takeaways

Although the Floodplains by Design program does not include funding opportunities for coastal hazards projects, it was included in this study because its holistic approach to floodplain management has been proposed as analogue for a similar grant funding program that could provide funding for coastal resilience projects. FbD's broad support and success to date demonstrate that the program's structure, design, and funding guidelines can inform the development of future state-run competitive grant funding programs.

Links

- Website: <http://www.floodplainsbydesign.org/>
- Funding guidelines (2021-2023):
<https://fortress.wa.gov/ecy/publications/documents/1906011.pdf>

National Fish and Wildlife Foundation (NFWF) National Coastal Resilience Fund (NCRF)⁷

Overview

"The National Coastal Resilience Fund restores, increases, and strengthens natural infrastructure to protect coastal communities while also enhancing habitats for fish and wildlife. Established in 2018, the National Coastal Resilience Fund invests in conservation projects that restore or expand natural features such as coastal marshes and wetlands, dune and beach systems, oyster and coral reefs, forests, coastal rivers and floodplains, and barrier islands that minimize the impacts of storms and other naturally occurring events on nearby communities."

– Program Overview⁸

⁷ In 2018, the NFWF National Coastal Resilience Fund replaced the NOAA Coastal Resilience Grant Program.

⁸ <https://www.nfwf.org/programs/national-coastal-resilience-fund>

Eligible activities

NFWF funds projects across four priority areas. These areas are meant to capture the entire project life cycle for physical projects that create and restore natural systems in order to increase a community's protection from coastal storms, erosion, inundation, and sea- and lake-level changes. The four priority areas are:

- Community Capacity Building and Planning⁹
- Project Site Analysis and Preliminary Design
- Project Final Design and Permitting
- Restoration and Monitoring

Matching requirements

NFWF seeks a minimum of 1:1 non-federal match, made up of any combination of cash or in-kind goods and services, including volunteer hours and property acquired during the project's period of performance. For every federal dollar awarded through this grant program, NFWF aims to achieve a ratio of at least \$2 raised in matching contributions (a 1:2 ratio). As such, larger match ratios and matching fund contributions from a diversity of partners will be more competitive during the application review process.

Takeaways

NFWF does not accept proposals for projects that seek funding across multiple project categories. Community Capacity Building and Planning projects are meant to support the identification and prioritization of specific strategies and projects that can be implemented using funds received through a future application to the NFWF National Coastal Resilience Fund or another funding program. These projects should engage key partners and stakeholders. Prior to the 2021 funding round, NFWF did not consider Community Capacity Building and Planning activities to be stand-alone projects.

For the Site Analysis and Preliminary Design, Final Design and Permitting, and Restoration and Monitoring priority areas, NFWF expects that prior to application submission, the applicant should already have identified a specific project to address community threats through initial planning and relevant analysis processes.

Links

- Website: <https://www.nfwf.org/programs/national-coastal-resilience-fund>
- 2020 Request for Proposals: <https://www.nfwf.org/sites/default/files/2020-03/ncrf-2020-rfp-updated.pdf>¹⁰

⁹ The Community Capacity Building and Planning category was added as a standalone category in 2021.

¹⁰ The NFWF 2021 Request for Proposals is available here: https://www.nfwf.org/sites/default/files/2021-05/NCRF_2021_RFP_3.24.21.pdf

NOAA Coastal Resilience Grant Program (CRGP)¹¹

Overview

“This program intends to invest in collaborative efforts that provide economic and environmental benefits and take advantage of the information, knowledge, and skills that are distributed across a diverse group of organizations and sectors. Proposed projects should leverage resources and mechanisms (human, financial, data/information, programs, and partnerships) to prepare and plan for, absorb, recover from, and successfully adapt to extreme weather events and climate-related hazards.”

– 2017 Request for Proposals, page 5

Eligible activities

The NOAA Coastal Resilience Grant Program specifically funded:

- Strengthening Coastal Communities projects
- Habitat Restoration projects

Matching requirements

Federal funds awarded under this program were required to be matched with non-federal funds (recipient contributions or third party in-kind cost share) at a 2:1 ratio of federal to non-federal contributions.

Takeaways

The Strengthening Coastal Communities category included activities that are described in later sections of this report as community development projects. Habitat Restoration funds were meant to support physical projects that reduced vulnerability to hazards and restored natural ecological systems.

Links:

- Request for proposals (2017):
<https://coast.noaa.gov/data/coasthome/funding/pdf/NOAA-NOS-NRPO-2017-2005159-ffo-modification-posted-03.16.2017.pdf>

¹¹ The NOAA Coastal Resilience Program is inactive and has been replaced by the NFWF National Coastal Resilience Fund.

NOAA Environmental Literacy Program (ELP)

Overview

“The goal of this funding opportunity is to build environmental literacy of K-12 students and the public so they are knowledgeable of the ways in which their community can become more resilient to extreme weather and/or other environmental hazards, and become involved in achieving that resilience.”

– 2020–2021 Notice of Funding Opportunity

Eligible activities

Projects must develop knowledge and skills that support the target audiences to:

- Reason about the ways that human and natural systems interact globally and where they live, including the acknowledgment of disproportionately distributed vulnerabilities
- Participate in scientific and/or civic processes
- Consider scientific uncertainty, cultural knowledge, and diverse community values in decision making

Projects may take place in formal educational settings, where K–12 students and teachers are target audiences, or in informal educational settings, where children, youth, and adults are target audiences.

Matching requirements

There are no cost-share requirements for this funding program.

Takeaways

NOAA ELP projects may include actions that could be characterized as physical or community development activities, but the fundamental requirement of all projects is that they increase community awareness of local hazards. Projects also support local and state government resilience efforts through incorporation of resilience plans and creation of partnerships between education institutions and local or state government offices.

Links

- Website: <https://www.noaa.gov/office-education/elp/grants/apply>
- Request for proposals (2020–2021): <https://www.grants.gov/web/grants/view-opportunity.html?oppld=321575>

Washington Coast Restoration and Resiliency Initiative (WCRRI)

Overview

“The mission of the WCRRI is to protect or restore the natural processes that create and sustain ecosystems of the Washington Coast while promoting the resilience of coastal communities through job creation and hazard reduction.”

– Request for Proposals (2021–2023 Biennium), page 4

Eligible activities

Projects must occur within the geographic boundary of the Coast Salmon Partnership and/or within the geographic boundary of one of the four Coastal Marine Resource Committees. The primary purpose of the project must address both of the following:

- The stimulation of local economic growth through job creation, addressing the regions highest priority ecological protection/restoration needs
- Substantial protection/restoration of ecosystem functions, goods, and services through cost-effective methods

Four activity types are eligible:

- Acquisition: the purchase of land, access, or other property rights (such as conservation easements)
- Restoration: projects that bring a site back to its original, historical function as part of a natural ecosystem, or enhance its ecological functionality
- Planning: design, analyses, innovative learning projects, and inventories
- Combination: projects that include acquisition and either restoration or planning aspects

Matching requirements

WCRRI does not require projects to provide a match of cash or in-kind services. However, projects that are able to provide non-state match will receive a scoring benefit during the application review process.

Takeaways

The Washington Coast Restoration Initiative was launched by Washington State in 2015 with the purpose of funding well-paying habitat protection and restoration employment opportunities across Washington’s Pacific Coast. The program was broadened with the aim of supporting coastal resiliency in 2018 and renamed the Washington Coast Restoration and Resiliency Initiative.

In order to support coastal resilience and ecosystem protection and restoration, the most competitive WCRRI proposals will: 1) fully address the restoration need, hazard risk, and community benefit, 2) identify process-based solutions, 3) take protection/restoration action,

4) provide a measure of the effectiveness of their actions at increasing the resiliency of the ecosystem, and 5) provide employment opportunities for coastal communities.

Links

- Website: <https://rco.wa.gov/grant/washington-coast-restoration-and-resiliency-initiative/>
- Request for Proposals (2021-2023 Biennium): <https://rco.wa.gov/wp-content/uploads/2020/02/WCRRI-RFP-2020-release.pdf>

Program Comparisons

Project types

Based on analysis of eligible project activities in the included funding programs, we identified three overarching project types in this study: physical projects, community development projects, and education projects. Some projects may include more than one type of activity described below; however, for the purposes of this study, project types are identified by what programs require from the final deliverable of the grant. See Table A-1 for an “at-a-glance” view of project types funded by each grant.

Table A-1. Project types funded by each funding program. Note that the NOAA Coastal Resilience Grant Program (CRGP) is no longer active.

	BIA	FEMA BRIC	FbD	NFWF NCRF	NOAA CRGP	NOAA ELP	WCRI
Physical		X	X	X	X		X
Community development	X	X ¹²		X ¹³	X		
Education	X					X	

Physical projects

Physical projects will ultimately lead to a specific “dirt-turning” activity. Physical projects may be at various phases in a project life cycle and are defined by the intended final outcome rather than the outcome of a single phase. Thus, a physical project that includes community development or education activities in early stages is still classified as a physical project for the purposes of this analysis.

Community development projects

Community development projects aim to create a foundation for decision makers or project proponents to build on. This can include project scoping, capacity building, strategy development, and project planning activities. Outcomes of community development projects may include coordinated strategies or plans, guidelines, or other similar resources. For the purposes of this study, we note programs that fund community development projects as stand-alone projects and do not require that they ultimately result in physical projects.

¹² The FEMA BRIC funding allocated toward community development in 2020 was minimal. Each state or territory was allocated a maximum of \$600,000 to be used for community and capacity building activities and/or mitigation projects.

¹³ NFWF added this project type as a standalone category in 2021.

Education Projects

Education projects target students, the general public, or specific subgroups of the general public and aim to increase the target audience’s awareness or understanding of hazards. While education projects may incorporate small physical installations or community development aspects, they are characterized by their focus on advancing knowledge or eliciting behavioral change.

Funding programs vary in how they define eligible activities within each type. For details on how each funding program defines eligible projects, see each program’s request for proposals or funding guidelines (linked under each project in the Program Summaries section above).

Project life cycle

Most projects are eligible for funding in distinct phases. These phases align with a traditional project life cycle: risk evaluation and characterization; project scoping and design; implementation; and evaluation. See Table A-2 for an “at a glance” view of life-cycle phases funded by each grant. We recognize that some programs will fund projects that span more than one of the phases listed. The results below indicate where programs require applicants to apply for and use funds within a distinct phase.

Table A-2. Project phases funded by each funding program.

	BIA	FEMA BRIC	FbD	NFWF NCRF	NOAA CRGP	NOAA ELP	WCRRRI
Risk evaluation and characterization		X	X	X			X
Project scoping and design		X	X	X			X
Implementation	X	X	X	X	X	X	X
Monitoring and evaluation			X	X	X	X	

Risk evaluation and characterization

This is the earliest stage of a project and includes two sequential outcomes: 1) a problem is identified, and 2) a problem is defined. Four of the seven programs included in this study provide funding at this stage.

Project scoping and design

This stage also includes two sequential outcomes: 1) options to address the problem are assessed (planning and scoping), and 2) a solution is decided upon, and the design of that solution begins (design). All programs, except NOAA Environmental Literacy Program (ELP), provide funding distinctly for this stage, though NOAA ELP projects may include these activities within the duration of the grant.

Implementation

All community development projects are included within this stage because these types of projects are not typically funded in distinct phases. Rather, these projects generally implement one overarching proposal. For physical projects, this stage typically involves construction or “dirt-turning” activities. In the case of an education project, it may include the rollout of the initiative. As such, all programs provide funding at this stage.

Monitoring and evaluation

The last stage includes monitoring and assessing the outcome of the project. NFWF and both NOAA programs require applicants to build evaluation components into their projects. FbD encourages, but does not require, applicants to include pre- and post-analyses in their proposals. It should be noted that funding programs do not typically cover funding for any monitoring and evaluation that would be conducted outside the project’s period of performance.

In determining whether a potential project might be eligible for funding from one of the programs included in this study, project type and project life cycle should both be considered. Although they are closely related, the two are not interchangeable.

Shared project characteristics

Based on the goals, objectives, and evaluation criteria of the funding programs, we identified four characteristics that all coastal hazards resilience projects, regardless of project type, have in common: they reduce vulnerability to coastal hazards; they are prioritized by or consistent with a larger plan; they leverage relevant partnerships throughout the process; and they are technically sound and feasible.

Though all funding programs emphasized these characteristics, the programs describe them differently based upon the overall goals of the funding program and project types that are eligible. These common project characteristics are detailed below.

Reduces vulnerability

For physical projects, this characteristic is unambiguous: the physical project must address a physical hazard risk, such as flooding or erosion, in a way that reduces community members’ physical vulnerability to that hazard.

For community development and education projects, this characteristic is more elastic. For example, BIA projects target reduced vulnerability through learning opportunities for decision-makers, which will ultimately result in reduced vulnerability through implementation of strategies or projects. Similarly, a NOAA Environmental Literacy Program project may help community members prepare for a natural disaster, which would reduce the community’s vulnerability to loss of life.

Prioritization in existing plans

All programs emphasized that project proposals should either be part of or consistent with broader, existing plans. FEMA specifically requires that BRIC projects are aligned with Tribal, state, or local hazard mitigation plans. Other programs are more flexible in what types of existing plans can be used to justify project alignment. WCRRI does not include this characteristic in the evaluation rubric, but two of the three proposal templates ask applicants to describe whether and how the project is part of a “larger overall project or strategy.” Similarly, BIA does not include this as an evaluation criterion, but the program’s emphasis on planning and management implies strong consideration of this characteristic throughout the grant.

Partnerships

Programs varied in how they defined and prioritized partnerships, and this characteristic is also shaped by project type and life-cycle phase. However, each program emphasized the importance of collaboration with and buy-in from impacted groups, stakeholders, or Tribes. Some programs included this as an evaluation metric, while others referred to it generally as a component of the program’s overall goals.

Technically sound and feasible

This characteristic refers both narrowly to the design specifications and broadly to the overall project plan, timeline, and goals. For physical projects, programs assess conformance with relevant design and engineering standards, current scientific research, and “readiness” to initiate the project. For community development and education projects, the appropriateness of chosen methods is considered. For all project types, programs require clear goals and objectives, a realistic work plan, and an achievable timeline.

Other project characteristics

The characteristics outlined below were shared or emphasized among some, but not all, of the funding programs included in this study. See Table A-3 for an “at-a-glance” view of characteristics required by each grant.

Transferability

The programs that valued transferability expected applicants to include a plan or demonstration of how lessons learned from project outcomes would be transferred to and shared with other relevant audiences for their potential use.

Long-term sustainability and consideration of climate change

The programs that emphasized long-term sustainability explicitly stated a preference for long-term solutions and scored the applicants accordingly. These same programs also included language that implied an expectation that applicants consider climate change (i.e., NOAA referred to “potential climate impacts”). WCRRI included climate change threat reduction in

project scoring and FbD explicitly referred to climate change in its description of project characteristics.

Table A-3. Project characteristics prioritized by each funding program.

	BIA*	FEMA BRIC	FbD	NFWF	NOAA CRGP	NOAA ELP	WCRRI
Reduces vulnerability	X	X	X	X	X	X	X
Prioritization in existing plans	X	X	X	X	X	X	X
Partnerships	X	X	X	X	X	X	X
Technically sound and feasible	X	X	X	X	X	X	X
Transferability	X			X	X	X	
Long-term sustainability and consideration of climate change		X	X	X	X		X
Other community benefits			X	X	X		X
Applicant experience			X	X	X	X	X
Engagement and outreach	X			X	X	X	
Restoration benefits			X	X	X		X
Cost-effectiveness		X	X	X			X
Matching requirements		X	X	X	X		

* Note that only Tribal entities are eligible for the BIA program.

Other community benefits

The four programs that refer explicitly to “community benefits” each define the characteristic differently. FbD provides a model for flexibility in this characteristic, noting that relevant benefits will vary according to community needs, project type, and goals. Others define them as full-time staff positions (or FTEs) created; direct community impacts and improvements; and threat reduction (WCRRI); critical assets protected and non-FTEs engaged (NFWF); and environmentally compatible socioeconomic benefits (NOAA).

Applicant experience

The programs that valued this characteristic all noted that applicants with the necessary education and skills, as well as those with past success managing resilience projects, would score well in this rubric category. As mentioned in the partnerships section above, the funding programs encourage applicants to list any and all project partners in order to demonstrate the range and breadth of experience, expertise, and collaboration on the project.

Engagement and outreach

Two types of engagement emerged as priorities within this characteristic: gathering input throughout the development of the project and communicating with appropriate audiences about the project in general. NFWF and NOAA refer to both types, while BIA emphasizes the importance of engaging with community members, and specifically elders, in the planning process. NOAA Environmental Literacy grants do not require a separate outreach component,

but given that the goal of these grants is to increase public awareness, it is implied that communicating about the project is a priority.

Restoration benefits

With the exception of FEMA, all of the programs that fund physical projects require that the project not only reduce vulnerability to hazards, but also provide an ecological restoration benefit in the area of implementation. Several grant programs, including FEMA, NFWF, and WCRRI, state that they aim to prioritize natural and nature-based solutions.

Cost-effectiveness

While FbD, FEMA, NFWF, and WCRRI all include cost-effectiveness in their descriptions or evaluations, FEMA BRIC has the most stringent requirements for how cost-effectiveness can be calculated and demonstrated. All proposed mitigation projects must have a benefit-cost ratio (BCR) of 1.0 or greater. This BCR must be demonstrated by the applicant through the use of a Benefit-Cost Analysis (BCA) tool that FEMA developed.¹⁴

Matching requirements

Four out of the seven programs included in this study (FbD, FEMA, NFWF, and NOAA) require match or cost-share for eligibility. Two more programs (BIA and WCRRI) do not require match, but projects that secure some matching funds will receive scoring benefits. In recognition of the equity concerns surrounding match requirements, FEMA BRIC will provide up to 90% of project costs for communities that qualify as small or impoverished. However, this definition is narrow, defined as “a community of 3,000 or fewer individuals identified by the applicant that is economically disadvantaged, with residents having an average per capita annual income not exceeding 80 percent of the national per capita income” (2020 BRIC NOFO, page 9). Floodplains by Design offers a waiver for communities that meet “economically disadvantaged” criteria and will provide 100% of project costs in those cases. The NOAA Coastal Resilience Grant Program also provided the option for applicants to waive match requirements with evidence of economic hardship.

¹⁴ FEMA’s BCA tool is available here: <https://www.whitehouse.gov/omb/information-for-agencies/circulars>

Key Takeaways

A shared description for fundable coastal hazards resilience projects

Based on this analysis of hazards resilience funding programs, we developed the following working description of what constitutes a fundable coastal hazards resilience project. This description encompasses the shared characteristics prioritized by all of the funding programs examined in this analysis.

A fundable coastal hazards resilience project is a physical, educational, or community development activity that, at a minimum, reduces a community's vulnerability to coastal hazards, is prioritized by or consistent with a larger plan, leverages relevant partnerships, and is technically sound and feasible.

While this description does not capture every priority for every funding program, local project proponents who scope and frame their proposals to meet these criteria will have strong foundations and be able to cast a wide net when identifying and applying for appropriate funding sources.

Limitations to funding

This analysis identified significant hurdles within the requirements of state and federal funding programs that pose additional challenges for small, rural, low-income, or underserved communities to overcome.

Funding is available and accessible for high-level planning efforts as well as for the construction or implementation of specific hazards resilience or mitigation projects. However, funding opportunities are lacking for community development efforts, such as project scoping, capacity building, strategy development, and project planning activities. This presents a significant gap in available funding for the process of addressing hazards-related issues in a comprehensive, forward-looking manner. Community development activities are necessary for the process of scoping and shaping identified hazards needs into “shovel-ready” resilience projects that serve short- and long-term community interests. In recent years, some funding programs have begun to fund standalone community development projects, but currently, available funding is still far from sufficient.

Strict benefit-costs analysis criteria or other stringent analyses for cost-effectiveness are likely to reduce the competitiveness of projects proposed in less populous areas or in communities with less developed infrastructure. Some funding programs do not appear to leave sufficient latitude for consideration of particular local circumstances.

Matching funds requirements are commonplace and could limit the ability of communities with limited resources to apply for and receive funding. Some funding programs will reduce matching funds requirements for small or low-income communities, but the eligibility criteria

are often quite narrow, as indicated by the definition of small, impoverished communities used by the FEMA BRIC program. Other funding programs do not require matching funds, but will provide scoring benefits if matching funds are proposed, which could still serve to reduce the competitiveness of proposals from small and underserved communities or discourage them from applying.

Finally, many funding programs lack advance funding payment mechanisms. Small communities may not have the funds on hand that are necessary to initiate projects before they receive awarded funds. This could present a significant obstacle for communities as they consider whether to apply for hazards resilience funding opportunities.