REQUEST FOR APPLICATIONS

ENGAGING COMMUNITIES TO DESIGN NATURE-BASED SOLUTIONS TO MITIGATE CLIMATE RELATED HAZARDS

NATIONAL ACADEMIES *Sciences Engineering Medicine*

GULF RESEARCH PROGRAM

Contents

SUMMARY OF THIS FUNDING OPPORTUNITY

The Gulf Research Program (GRP) addresses the health and resilience challenges of US Gulf Coast communities that are disproportionately impacted by climate change. One approach the GRP is taking to address these challenges is to build the capacity of communities to mitigate future climate risks. Though there are numerous resources available to assist communities in becoming more resilient to climate impacts, these resources often do not reach or benefit those communities most at-risk.[1] In addition, much of the available funding is directed toward traditional mitigation measures (e.g., dams, levees, floodwalls) rather than alternate strategies such as nature-based solutions (NBS), and many communities do not have the subject matter expertise to develop strategies that include NBS.

This funding opportunity focuses on the importance of NBS as part of a strategy to mitigate climate-related hazards. Specifically, this opportunity will fund collaborations between subject matter experts and local or tribal governments that engage diverse groups of community stakeholders to adapt an existing or design a new project that incorporates one or more NBS. The NBS must (1) mitigate one or more climate-related hazards in an at-risk community that is disproportionately impacted by the selected hazard(s), (2) have the potential to enhance human health and/or community resilience, and (3) incorporate equity into the planning and design process.

AWARD DETAILS

Phase 1: Planning Grant

Total Amount Available:	Up to $1 million
Award per grantee:	Up to $100,000
Period of Performance:	Up to 6 months
Estimated Number of Awards:	10

Phase 2: Project Design Grant

Total Amount Available:	Up to $4 million
Award per grantee:	Up to $1 million
Period of Performance:	Up to 18 months
Estimated Number of Awards:	4

The GRP is accepting proposals from U.S. academic institutions and nonprofit research organizations.

KEY DATES

Phase 1: Planning Grant

- **February 14, 2022:** Planning grant opens
- **April 8, 2022:** Deadline for submissions of proposals due by 5:00 p.m. Eastern Time
- **August 2022:** Award selection and notification
- **October 15, 2022:** Funding start date
- **May 14, 2023:** Funding end date

Phase 2: Project Design Grant

- **May 31, 2023:** Deadline for submissions of full proposals for consideration for a Phase 2 grant due by 5:00 p.m. Eastern Time
- **August 2023**: Award selection and notification

- **October 15, 2023**: Anticipated funding start date
- **April 14, 2025:** Anticipated funding end date
- **June 15, 2025**: Final reports and expected outputs due

Online submission website: https://gulfresearchprogram.smapply.io/

THE CHALLENGE

Climate change is exacerbating a cluster of social and environmental challenges (e.g., social inequities, health disparities, extreme weather and disaster impacts) in U.S. Gulf Coast communities.[2] Responding to climate change involves both mitigation and adaptation actions at different levels of governance, and NBS are a promising approach for action at the community level.[3] Yet much of the available funding is directed toward traditional mitigation measures (e.g., dams, levees, floodwalls). And most funding for traditional mitigation measures, much less NBS, is not allocated to at-risk communities. In addition, most communities do not have the subject matter expertise to develop alternate strategies that include NBS.

NBS are "actions to protect, sustainably manage, and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing for human well-being and biodiversity benefits."[4] There are potential advantages to employing NBS over traditional mitigation measures. For example, they can be more sustainable, cost-effective, and produce greater co-benefits compared to traditional methods.[5] They can also be tailored to address specific community priorities and values.[6] These advantages suggest that NBS can both mitigate climate change *as well as* other social and environmental challenges in communities.

PURPOSE OF THIS FUNDING OPPORTUNITY

The purpose of this funding opportunity is to support partnerships between subject matter experts and local or tribal governments that engage diverse community stakeholders to adapt an existing or design a new project that incorporates one or more NBS that:

1. mitigates one or more climate-related hazards (e.g., sea level rise, flooding, extreme heat, etc.) in an at-risk community that is disproportionately impacted by the selected hazard(s),
2. has the potential to enhance human health and/or community resilience, and
3. incorporates equity[7] (e.g., in the planning and design process, by bringing diverse voices to the table, by enhancing the health of at-risk community members, etc.).

Eligible projects could include designing a project to convert existing grey infrastructure into green infrastructure or designing a new project that incorporates NBS.

The GRP is accepting proposals from U.S. academic institutions or nonprofit research organizations. Minority Serving Institutions (MSIs)[8] are strongly encouraged to apply. Communities must be located in the GRP's geographic focus area, which includes the coastal regions bordering the Gulf of Mexico of all five U.S. Gulf Coast states and Southcentral Alaska. Applicants are encouraged to submit innovative project ideas.

This funding opportunity consists of two phases:

Phase 1: Planning Grant

The purpose of Phase 1 is to provide project directors and team members the opportunity to:

1. build new or expand existing partnerships (e.g., with local or tribal government, community stakeholders, subject matter experts, private sector);
2. engage community stakeholders to identify:
    a. the climate-related hazard that will be mitigated,
    b. how health and/or community resilience is impacted by the climate-related hazard,
    c. the NBS and how it would enhance health or community resilience;
3. co-develop with the project partners a full proposal that details how the partnership will design the NBS during Phase 2 (see "Funding Opportunity Guidelines" for more details). Proposals could put forth ideas to design a project to convert existing grey infrastructure into green infrastructure or design a new project that incorporates NBS.

The GRP expects to fund 10 six-month planning grants.

Anticipated Output from Phase 1 Work: Full Proposal (see "Phase 2: Project Design Grant" under the "Application and Review" section below for information on the elements that should be included in the full proposal).

Phase 2: Project Design Grant

The purpose of Phase 2 is to provide project directors, team members, and partners the opportunity to adapt an existing or design a new project that incorporates one or more NBS to mitigate an identified climate-related hazard(s).

The GRP expects to fund four of the ten full proposals submitted for Phase 2.

Expected Phase 2 Outputs: A full-scope NBS project plan and design that incorporates a NBS and post-design learning and analysis documentation.

ANTICIPATED OUTPUTS

Each phase of this funding opportunity has distinct anticipated outputs including:

Anticipated Output from Phase 1 (Planning Grant) Work

A **full proposal** that can be submitted for consideration for Phase 2 funding (See "Funding Opportunity Guidelines" below for more details).

Expected Phase 2 (Project Design Grant) Outputs

1. A **full-scope NBS project plan and design** that:
    a. describes the details and design of the NBS, including a description of the design process, data and/or decision-support tools used, analyses conducted, etc., and how equity was incorporated into the design of the NBS;
    b. compares the NBS to traditional mitigation measures (e.g., pros/cons, benefits/costs) and considers the impacts on the community if no measures are taken to mitigate the hazard;
    c. discusses how the co-benefits of the NBS could be measured and assessed;
    d. discusses how the NBS could be managed, maintained, sustained, and adapted to accommodate future conditions (e.g., shifting ecological changes);

e. identifies potential immediate, mid-, and long-term outcomes (e.g., human health, community resilience, economic, socio-ecological, etc.) for subgroups of the community or the community as a whole; and
f. outlines next steps and feasibility for implementing the project (e.g., required partners, potential funding sources).

2. **Post-Design Learning and Analysis Documentation**: The GRP is interested in developing strategies, processes, methods, approaches, tools, lessons learned/best practices, etc., that can be shared across communities. In this case, the GRP is interested in the steps communities could take to adapt an existing or design a new project that incorporates one or more NBS to mitigate an identified climate-related hazard(s). The documentation should:
    a. summarize the partners, community stakeholders, and experts that participated in the planning and design and what their roles/responsibilities were;
    b. document the collaborative planning and design processes;
    c. include lessons learned, both successes and challenges (e.g., applying an equity lens and engaging communities); and
    d. discuss the government partners' and community stakeholders' reflections on the planning process, outputs, and potential outcomes of the project, and their perceptions about the potential effectiveness of NBS over traditional mitigation strategies.

Grantees are also required to adhere to internal GRP reporting requirements (e.g., progress reports, financial reports, etc.). For more information, see "Reporting Requirements" below.

FUNDING OPPORTUNITY GUIDELINES

ELIGIBILITY

The GRP welcomes proposals from U.S. academic institutions and nonprofit research organizations. The applying institution/organization will be referred to as the "applicant" hereafter. The individual who will lead the proposed project will be referred to as the "project director" hereafter.

<u>The GRP requires applicants to adhere to the following:</u>

- Proposed activities currently under consideration for funding from other sources are not eligible.
- Proposed activities involving advocacy or lobbying are not eligible.
- All applicants must have a valid U.S. federal tax ID number.
- U.S. federal agencies are not eligible to receive GRP funding as applicants or sub-awardees, although their employees may be non-funded collaborators.
- Federally Funded Research and Development Centers (FFRDCs) and University Affiliated Research Centers (UCARCs) can be named as sub-awardees, however, they must have the authority to obtain funding for work outside of their federal sponsor contact and not be proposing to do work they are otherwise doing under their federal sponsor contract.
- BP Exploration and Production, Inc. (BP), Transocean Deepwater, Inc. (Transocean), their affiliates, and employees are not eligible to receive grant funding or to participate in any grant.

<u>The GRP requires the project director and key personnel in an application to adhere to the following</u>:

- An individual may be named as project director in only one application.

- An individual, including a project director, may be named as project team members in any number of other applications.
- If an individual appears on multiple proposals, a clear description should be included to explain how the proposed work is complementary and not duplicative of other proposed efforts and how the participant will budget his or her time.
- Should an individual appear on two or more proposals as project director, ALL proposals listing that individual as project director will be disqualified and eliminated from the review process. It is the responsibility of the project directors to confirm that each member of the entire team is within the eligibility guidelines.

APPLICATION

This funding opportunity will have two peer review stages:

Stage 1 will review the proposal for the Planning Grant.
Stage 2 will review the full proposal for the Project Design Grant.

Please review the application preparation and submission instructions and submit any questions to gulfgrants@nas.edu prior to the submission deadlines. The GRP strives to respond to applicants' questions within two business days but cannot guarantee that applicants' questions will be answered before submission deadlines.

The GRP will only accept proposals submitted via the online application system. Proposal materials submitted in any language other than English will not be considered. The GRP may reject, without review, proposals that are not responsive to the Request for Proposal instructions.

Phase 1: Planning Grant

The purpose of Phase 1 is to provide the project director and team member(s) the opportunity to build new or expand existing partnerships and engage community stakeholders to co-develop with partners/community stakeholders a full proposal that details how the partnership will design the NBS during Phase 2.

View the planning proposal template; however, the GRP will only accept proposals submitted via the online application system.

The proposal for the planning grant must include the following elements:

I. **Project Personnel**
II. **Project Details**
III. **Timeline**
IV. **Project Budget**
V. **Required Attachments**

Proposals are currently being accepted for the Phase 2 Project Design Grant only.

Phase 2: Project Design Grant

The full proposal to design a NBS must include the following elements:

I. **Project Team**

Project directors are encouraged to assemble diverse project teams. Partnerships with nonprofits, community-based organizations, and/or faith-based organizations that are representative of the community of interest are highly encouraged.

a. Project director. List the project director's name, email, organizational affiliation, type of institution, and project role.
    i. ORCID (Open Research and Contributor ID)
b. Project Team Members. List the name, email, organizational affiliation, type of institution, and project role of each project team member and in the order of their importance to the project.
c. If applicable, describe involvement of the project directors and project team member(s) in other proposals related to this funding opportunity.

II. **Project Details**

a. Project Title (maximum 15 words)
b. Project Summary (maximum 250 words). An overview of the proposed project written for a scientifically or technically literate person.
c. Project Key Words (maximum 10 words)
d. Project Duration (maximum 18 months)
e. Project Location (maximum 10 words). List where (e.g., which town, city, parish, etc.) this project would be implemented.
f. Project State(s). Select the state(s) for the proposed primary project location.
a. Project Description and Approach (maximum 7000 words)
    i. Project community. Describe the at-risk community involved (e.g., demographics, history of being disproportionately impacted by climate-related hazard(s), major health and/or community resilience priorities, socio-ecological challenges, etc.) and what makes this community a good fit for the project.
    ii. Project Team/Personnel. Describe the project director's and each project team member's research and/or practical experience related to the selected at-risk community and/or project location, if applicable, and/or with one or more topic(s) relevant to the challenge and purpose of this funding opportunity.
    iii. Project partners. Describe which specific local or tribal government partner will the project team partner with (e.g., mayor's office, emergency management, housing and community development, planning, transportation, public health, etc.). Include any other project partner(s) (e.g., experts, community stakeholders) and what value each partner brings to the project. *The GRP encourages inter-disciplinary project teams that include diverse expertise (e.g., that include expertise in engineering, design, urban/community planning, public health, economics, etc.) and diverse community stakeholders (e.g., community-based organizations, faith-based organizations, private sector).*
    iv. Project Goals and Objectives. Provide a clear statement of the project goals and objectives. It is important that the project objectives are reasonable for the proposed timeline and budget.

v. Climate-related hazard(s). Discuss the climate-related hazard(s) that the project intends to mitigate, what the impacts of this hazard(s) will be on the at-risk community, and what is currently being done to mitigate this hazard(s).

vi. Nature-based solution(s). Building on the Phase 1 planning process, describe the NBS that will be incorporated into the project design and how the selected NBS is intended to mitigate the climate-related hazard(s). Describe the key elements needed to implement the NBS, what the expected co-benefits of the NBS are (e.g., enhance human health and/or community resilience, address other socio-ecological challenges in the at-risk community, etc.), and how equity will be incorporated throughout the design process (e.g., who will participate and what will their roles be, how will co-benefits be prioritized and for whom, etc.).[9] [10]

vii. Design Project Work Plan. Building on the Phase 1 planning process, describe the work plan for the design phase and the research/design methods that will be used to develop the proposed design project. The work plan should include: a roadmap describing the tasks and processes required to complete the design of the project, guidelines for making decisions and tracking progress towards completion of the design, and anticipated roadblocks and how to manage them. Additionally, describe the approaches, methods, and activities that will be used to continue engaging project partners and other community stakeholders to develop the design project.

viii. Project assessment. Describe what success would look like for your project and how it will be assessed/measured.

ix. Potential for impact. Describe how the outputs/outcomes of this project could be useful to other communities.

b. Citations. Please provide a list of all works cited.

c. Project Timeline (maximum 1000 words or upload). Details for the anticipated project tasks, milestones, and completion dates. May be a Gantt chart, a description, or other type of project schedule.

d. Figures, Diagrams, and Tables (optional)

e. Data Management Plan (maximum 1500 words). A description of how data will be collected, managed, stored, made accessible, and protected throughout the project. Please refer to GRP's Data Management Policy for guidance on the development of the project Data Management Plan.

f. Procedural Information. For projects involving human subjects research or the use of human-subject data, a statement about Institutional Review Board approval/exemption, and a description of the risks to subjects and how those risks will be mitigated. See "Research Involving Human Subjects Policy."

III. **Proposed Budget**

a. Total Budget Requested (up to $1,000,000)

b. Budget Justification (See sample document).

c. Budget Form: Download the budget template. Complete this form to provide information on the proposed budget. Budget requests should be developed commensurate with the support needed to achieve project goals.

IV. **Other Attachments**

a. **Resume(s)**: Resumes are required for the Project Director and every individual identified as a Project Team member. Resumes may not exceed two pages per person. See resume specifications for additional guidance. All resumes should be combined and uploaded as a single PDF document. Resumes for Individuals not named as a project director or

project team member in the "project team member" section should not be included. It is the responsibility of the project director to ensure that the project team members listed in the "project team member" section are correct and match the resumes submitted.

b. **Collaborators and Other Affiliations Form:** The purpose of this form is to help the GRP eliminate potential conflicts of interest during reviewer recruitment. Download the form and complete it to provide information on the following:
    i. All persons (including their current organizational affiliations) who are currently, or who have been collaborators (i.e. an individual with whom you work closely to co-design or conduct a project) or co-authors with the individual on a project, book, article, report, abstract, or paper during the 48 months preceding the submission of the application.
    ii. The individual's own graduate and postdoctoral advisor(s) and their current organizational affiliations.
    iii. All persons (including their current organizational affiliations) with whom the individual has had an association as a graduate or postdoctoral advisor.
c. **Current and Pending Support from Other Sources Form**: Download the form. Applicants must provide information on the current and pending support of the project director, and other Project Team members, if applicable, and upload it to the online application system. The form calls for required information on current and pending support for ongoing projects and proposals. All current project support from whatever source (e.g., federal, state, local or foreign government agencies, public or private foundations, industrial or other commercial organizations) must be listed. The proposed project and all other projects or activities requiring a portion of time of the project personnel and other senior personnel must be included, even if they receive no salary support from the project(s). The total award amount for the entire award period covered (including indirect costs) must be shown as well as the number of person-months per year to be devoted to the project, regardless of source of support.
d. **Optional Attachments** Applicants are welcome to upload 3 additional documents (2 MBs each) to support their application (e.g. letters of support, strategic plan).

PEER REVIEW PROCESS

This funding opportunity will have two peer review stages:

Stage 1 will review the proposal for the Planning Grant.
Stage 2 will review the full proposal for the Project Design Grant.

Only complete applications meeting the eligibility criteria will be evaluated by external reviewers based on the Merit Review Criteria (see below). Funding decisions will take into consideration the reviewer's evaluations and the program's funding availability, current portfolio, objectives, and goals. The final decision for funding will be made by the National Academies. Visit our website to see the GRP's conflict of interest and confidentiality policies.

MERIT REVIEW CRITERIA FOR PHASE 1: PLANNING GRANT

Proposals for planning grants will be evaluated on the basis of four review criteria. The bullets under each criterion should guide applicants in writing the required elements listed under "Funding Opportunity Guidelines" and guide reviewers in evaluating them.

Relevance & Engagement (35%)

- To what extent is the proposal aligned with the purpose of the funding opportunity?
- To what extent does the proposal seek to engage community stakeholders?
- To what extent are the engaged community stakeholders well-qualified in their experience, knowledge, and expertise to plan the project?
- To what extent are the identified community engagement approaches or methods effective at engaging community stakeholders throughout the planning process?
- To what extent will the proposed community engagement activities achieve the community engagement objectives?

Potential for Scientific Rigor (35%)

- To what extent does the proposal describe the impacts of the climate-related hazard(s) on the at-risk community?
- To what extent does the proposal provide a well-justified rationale for how the identified NBS could mitigate the climate-related hazard(s)?
- To what extent does the proposal describe the potential co-benefits of the NBS?
- To what extent does the proposal describe how equity will be incorporated throughout the planning process?

Project Team/Project Partners (20%)

- To what extent is the project director well-qualified in their experience, knowledge, and skills to lead project planning and implementation?
- To what extent are the project team members well-qualified in their experience, knowledge, and skills to ensure the completion of a successful project?

Feasibility & Budget (10%)

- To what extent is the proposal feasible within the 6-month award period?
- To what extent is the budget commensurate with the proposed project activities?

Merit Review Criteria for Phase 2: Project Design Grant

Proposals to design a NBS will be evaluated on the basis of four review criteria. The bullets under each criterion should guide applicants in writing the required elements listed under "Funding Opportunity Guidelines" and guide reviewers in evaluating them.

Relevance & Potential Impact (25%)

- To what extent is the proposal aligned with the challenge?
- To what extent is the proposal aligned with the purpose of the funding opportunity?
- To what extent could the project outcomes be useful to other communities?

Engagement & Scientific Rigor (50%)

- To what extent does the proposal plan to engage community stakeholders throughout the design process?
- To what extent does the proposal outline a well-justified work plan for designing the NBS project?
- To what extent does the proposal provide a well-justified rationale for how the identified NBS would mitigate the climate-related hazard(s)?

- To what extent does the proposal describe how the selected NBS would produce co-benefits for the at-risk community?
- To what extent does the proposal incorporate equity throughout the design process?
- To what extent does the proposal provide a well-justified approach to achieve project goals and objectives?

Project Team (20%)

- To what extent is the project director well-qualified in their experience, knowledge, and skills to lead project planning and implementation?
- To what extent are the project team members well-qualified in their experience, knowledge, and skills to ensure the completion of a successful proposed project?
- To what extent does the project team represent a diverse and interdisciplinary partnership?
- To what extent are the project partners well-qualified in their experience, knowledge, and expertise to design the project?

Feasibility & Budget (5%)

- To what extent is the proposal feasible within the 18-month award period?
- To what extent is the budget (up to $1,000,000) commensurate with the proposed project activities?

Data Management Policy

The GRP's Data Management Policy will apply to Phase II of this funding opportunity (project implementation) and should be considered in the planning process. To facilitate sharing of data and information products, all applications submitted to the GRP must include a data management plan and follow FAIR guiding principles (FAIR stands for "Findable, Accessible, Interoperable, Reusable." To learn more about FAIR guiding principles refer to the National Academies report *Open Science by Design: Realizing a Vision for 21st Century Research*).

The GRP follows the federal government's definition of data in the Office of Management and Budget (OMB) 2 Code of Federal Regulations (CFR) Section 200.315: "...the recorded factual material commonly accepted in the scientific community as necessary to validate research findings." Information products may include documents (i.e., reports, workshop summaries, etc.), multi-media curricula for education and training (i.e., video and/or online tutorials, manuals and handbooks, etc.), and other media and communication platforms. Even in the unlikely case in which no data or any other information products will be produced, a plan must be submitted that states "No data or information products are expected to be produced from this project."

The GRP's Data Management Policy and Data Management web page provides information on what must be included in the data management plan submitted as part of an application.

Research Involving Human Subjects Policy

The GRP's Research Involving Human Subjects Policy will apply to Phase II of this funding opportunity (project implementation) and should be considered in the planning process. All projects involving human subjects must be submitted to an institutional review board (IRB) for review and either receive IRB approval or be granted exemption from human subjects' regulations before an award can be made. Proposers should file their application with their local IRB at the same time the application is submitted

to the GRP so that any approval procedure determined as necessary will not delay the award process. An application may be submitted to the GRP prior to receiving IRB approval or being granted exemption; however, if the application is selected for funding, the award will be made conditional upon IRB granting approval or exemption from human subjects' regulations within 60 days of the notice of conditional award. If a proposed project involving human subjects is granted exemption from human subjects' regulations [see 45 CFR 46.101(b)], the Applicant must provide documentation that an IRB (or the appropriate authority other than the Project Director or Key Personnel) has declared the project exempt from the human subjects regulations. Documentation should include the specific category justifying the exemption. Organizations without internal access to an IRB must seek approval or exemption from an independent review board or other appropriate authority.

MAKING THE AWARD

SELECTION NOTICE

The GRP reserves the right to select all, some, one, or none of the proposals received in response to this solicitation.

When the evaluation of a proposal is complete, the project director will be notified that (1) the proposal has been selected for funding pending contract negotiations, or (2) the proposal has not been selected. These official notifications will be sent via email to the project director identified on the application. If a proposal is selected for award, the GRP reserves the right to request additional or clarifying information for any reason deemed necessary, including, but not limited to, indirect cost information or other budget information. Awardees are free to accept or reject the grant agreement as offered.

AWARD NOTICE

The GRP transmits award notices to organizations via e-mail. The award is not finalized and the National Academies of Sciences, Engineering, and Medicine is not obligated to provide any funding until a signed copy of the award agreement has been received by the Academies.

GRANT PERIODS

Upon receipt of the award notice, the awardee should note the effective date and the expiration date. Effective date is the date specified in the grant notice on or after which expenditures may be charged to the grant. Charging expenditures to the grant prior to the effective date is prohibited. Expiration date is the date specified in the grant notice after which expenditures may not be charged against the grant except to satisfy obligations to pay allowable project costs committed on or before that date. Once an award is made, the effective date cannot be changed. The expiration date may be changed as a result of approval of a request for a no-cost extension. If approved, the GRP will issue an amendment to the grant.

If additional time beyond the performance period and the established expiration date is required to assure adequate completion of the original scope of work within the funds already made available, the awardee may apply for a one-time, no-cost extension of up to six months. A formal request must be submitted to the GRP at least 45 days prior to the expiration date of the grant. The request must explain the need for the extension and include an estimate of the unobligated funds remaining and a plan for their use. This one-time extension will not be approved solely for the purpose of using the unliquidated balances.

POST-AWARD MANAGEMENT

COORDINATION WITH GRP

After the award is conferred, grantees shall coordinate with GRP to formally initiate the project. GRP staff will periodically request status meetings during the project implementation phase to discuss progress and any unanticipated developments that may affect the project outcomes as specified in the grant agreement. These interactions will help ensure successful management of the grant.

REPORTING REQUIREMENTS

After an award is conferred, the grantee shall provide an annual financial report to the GRP to report on grant expenditures to date under the grant. The grantee shall provide an annual written report to the GRP to report on activities being carried out under the grant, including but not limited to project accomplishments to date and grant expenditures. No later than sixty (60) days after the expiration of the award, the grantee shall provide in writing a final grant report. The final grant report shall address the original objectives of the project as identified in the grant proposal, describe any changes in objectives, describe the final project accomplishments, and include a final project accounting of all grant funds.

DATA MANAGEMENT

Implementation of a data management plan will be monitored through the annual and final report process. All data, including modeled and observational data when available, shall be made available with minimal delay to the GRP for each dataset, through submission to the Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC) and/or other appropriate national repositories as approved by GRIIDC for use by intermediate and end-users. Even when no data or any other information products will be produced, a plan must be submitted that states "No data or information products are expected to be produced from this project." Please see the GRP's Data Management Policy and Data Management webpage for information on this requirement.

SCIENTIFIC INTEGRITY

A fundamental purpose of the GRP is to facilitate the advancement of knowledge and the application of science to address challenges relevant to the Program's mission. All activities of the GRP will be conducted to meet the highest standards of scientific integrity. All grantees have a responsibility to use the funds wisely.

POST-AWARD EVALUATION

The Gulf Research Program conducts evaluations of its grantmaking in support of improving its practices and decision-making. These evaluations are intended to:

- Help build an evidence base that both grantees and GRP can use to understand their impact.
- Enable organizational learning and increase capacity to provide quality programming.
- Support the sharing of successes, challenges, and insights among funders, grantees, and stakeholders.

The Gulf Research Program will monitor and evaluate the grant at reasonable times and at our expense, which may include visits by our representatives to observe your program procedures and operations, data collection by an evaluator, and/or discussion of the project with your personnel and stakeholders.

Grant Terms and Conditions

Please review the Grant Agreement prior to submitting an application. It is the policy of National Academies of Sciences, Engineering, and Medicine to entertain potential modifications to the Grant Agreement only under the most exceptional circumstances. Rather, successful applicants are strongly encouraged to sign the Grant Agreement as presented.

- View a sample grant agreement if the applicant is a public institution.
- View a sample agreement if the applicant is a private institution.

About the Gulf Research Program

The Division

The GRP is a division of the National Academies of Sciences, Engineering, and Medicine—a private, nonprofit organization with a 150-year history as an independent advisor to the Nation on issues of science, engineering, and medicine. The GRP was founded in 2013 as part of legal settlements with the companies involved in the 2010 Deepwater Horizon disaster, and received an endowment to carry out studies, projects, and other activities in the areas of research and development, education and training, and monitoring and synthesis.

The GRP seeks to enhance offshore energy safety, environmental protection and stewardship, and human health and community resilience in the Gulf of Mexico and beyond. It focuses its work on the Gulf of Mexico and other outer continental shelves of the United States where there is hydrocarbon production, and on their coastal zones; specifically, this includes the areas of the Southcentral region of Alaska that are or could be affected by activities (e.g., drilling, production, and transportation) associated with hydrocarbon production in the offshore. Where appropriate, the GRP's work may extend farther inland or into adjacent seas.

The GRP uses four strategic approaches to "catalyze, implement, and track positive impact in the Gulf of Mexico and beyond"[11]:

1. Advance science and understanding
2. Bridge knowledge to action
3. Build partnerships and engage networks
4. Monitor for progress and change

The Health and Resilience Program

The Gulf Health and Community Resilience Program manages two major efforts: 1) the Gulf Health and Resilience Board which funds research and supports projects that develop approaches and solutions that advance science and understanding in health and community resilience, and 2) the Enhancing Community Resilience Initiative, a concerted community engagement program that applies science in select communities to support local health and community resilience efforts.

The overarching goal of the Health and Resilience Program is to advance equity in health and climate resilience efforts in the GRP's geographic areas of focus (i.e., the coastal areas of the Gulf region and Southcentral Alaska) by:

- Reducing inequities in health and community resilience.
- Advancing research and practice in health and community resilience.
- Building the capacity of communities to: 1) address the impacts of climate change and disasters on at-risk communities,[12] and 2) sustain their disaster and climate resilience efforts.

The Health and Resilience Program uses two complementary frameworks to approach its work:

1. the SDOHs
2. the six community capitals[13]

Diversity, Equity, and Inclusion

The GRP takes issues of equity and justice very seriously. We are committed to promoting diversity, equity and inclusion in our work, and exercising these principles in our staffing, granting, board appointments, and fellowships. No person on grounds of race, color, age, sex, national origin, religion, marital status, pregnancy, parenthood, or disability shall be excluded from participation in, denied the benefits of, or be subjected to discrimination under this program.

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[1] The GRP defines "at-risk" communities as those who are underserved, under-resourced, under-represented, over-burdened, or otherwise marginalized.

[2] Elisaveta P. Petkova et al. "Climate Change and Health on the US Gulf Coast," 9342 – 9356; Vera Ferreira et al. "Stakeholder's Engagement on Nature-Based Solutions: A Systematic Literature Review," 1 – 27.

[3] M. van den Bosch, and A. Ode Sang. (2017). "Urban natural environments as nature-based solutions for improved public health – A systematic review of reviews," 373 – 384; For more information about nature-based solutions see: https://www.iucn.org/resources/issues-briefs/ensuring-effective-nature-based-solutions

[4] The International Union for Conservation of Nature (https://www.iucn.org/theme/nature-based-solutions) or NASEM 2019 (https://www.nap.edu/catalog/25108/understanding-the-long-term-evolution-of-the-coupled-natural-human-coastal-system)

[5] Borja G. Reguero et al. "Comparing the cost effectiveness of nature-based and coastal adaptation: A case study from the Gulf Coast of the United States," e0192132; Saskia Keestra et al. "The superior effect of nature based solutions in land management for enhancing ecosystem services," 997 – 1009; Stephan Pauleit et al. "Nature-based solutions and climate change—Four shades of green," 29–49.

[6] van den Bosch, and Ode Sang. "Urban natural environments as nature-based solutions for improved public health – A systematic review of reviews," 373-384; Keestra et al. "The superior effect of nature based solutions in land management for enhancing ecosystem services," 997-1009; Reguero et al. "Comparing the cost effectiveness of nature-based and coastal adaptation: A case study from the Gulf Coast of the United States," e0192132; Ferreira et al. "Stakeholder's Engagement on Nature-Based Solutions: A Systematic Literature Review," 1-27; Nelson et al. "Challenges to realizing the potential of nature-based solutions," 49 – 55.

[7] Ferreira et al. "Stakeholder's Engagement on Nature-Based Solutions: A Systematic Literature Review,"1 – 27.

[8] Minority Serving Institutions (MSIs) include Historically Black Colleges and Universities (HBCUs), Hispanic-Serving Institutions (HSIs), Tribal Colleges and Universities (TCUs), and Asian American and Pacific Islander Serving Institutions (AAPISIs).
[9] Nelson et al. "Challenges to realizing the potential of nature-based solutions," 49 – 55.
[10] Ferreira et al. "Stakeholder's Engagement on Nature-Based Solutions: A Systematic Literature Review,"1 – 27.
[11] National Academies of Sciences, Engineering, and Medicine. 2020. *Gulf Research Program: 2020-2024 Strategic Plan*, pp. 3-4. Available at https://www.nationalacademies.org/_cache_0f9e/content/4885770000227383.pdf. Retrieved April 24, 2021.
[12] The GRP defines "at-risk" communities as those who are underserved, under-resourced, under-represented, over-burdened, or otherwise marginalized.
[13] National Academies of Sciences, Engineering, and Medicine. 2019. *Building and Measuring Community Resilience: Actions for Communities and the Gulf Research Program*, pp. 15-17. Washington, DC: The National Academies Press. https://doi.org/10.17226/25383.