The National Academies of | **SCIENCES**
ENGINEERING
MEDICINE

GULF RESEARCH PROGRAM

Healthy Ecosystems Grants 4—Request for Applications

Topic: Advancing Understanding of Coastal Ecosystem Function and Dynamics in the Coupled Natural-Human System of the U.S. Gulf Coast
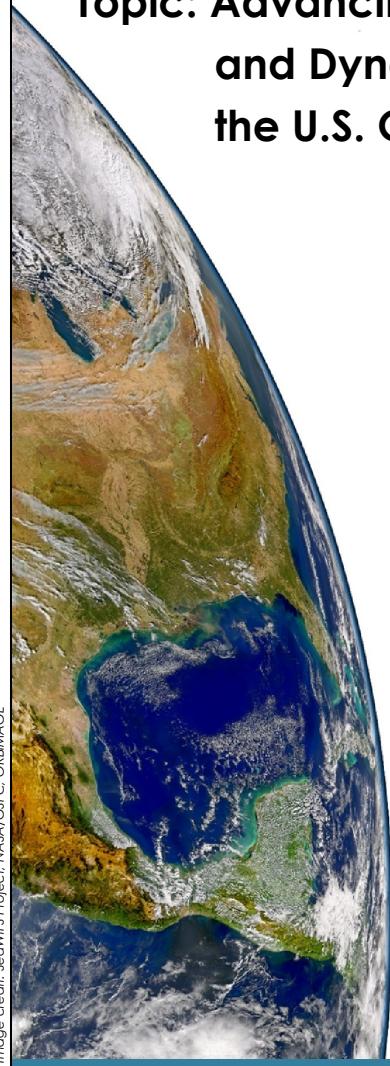
KEY DATES & INFORMATION	
AWARD INFORMATION	
Total Funding Available: $5 million	
Award Duration: Up to 36 months	
LETTER OF INTENT (LOI) (An LOI is required for this funding opportunity.)	
March 27, 2018:	Online LOI submission opens
May 22, 2019:	LOI due by 5:00 pm Eastern Time
FULL PROPOSAL (Only open to applicants who submitted a Letter of Intent)	
May 23, 2019:	Online full proposal submission opens
July 31, 2019:	Full Proposal due by 5:00 pm Eastern Time
AWARD SELECTION AND NOTIFICATION	
Winter 2020	

Version 1.3—Issued on 07/15/2019
(Check if an updated version of this RFA has been issued at
nationalacademies.org/gulf/grants/he-4

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GENERAL INFORMATION

About the Gulf Research Program

The Gulf Research Program is an independent, science-based program founded in 2013, as part of legal settlements with the companies involved in the 2010 *Deepwater Horizon* disaster. It seeks to enhance offshore energy system safety and protect human health and the environment by catalyzing advances in science, practice, and capacity to generate long-term benefits for the Gulf of Mexico region and the nation. The program 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.

Contact Information

Address:	
Gulf Research Program	
National Academies of Sciences, Engineering and Medicine	**Web**: nationalacademies.org/gulf
500 Fifth Street, NW	**Email (General):** gulfprogram@nas.edu
Washington, DC 20001	**Email (Grants):** gulfgrants@nas.edu
	Email (Fellowships): gulffellowships@nas.edu

Learn More

- About the Gulf Research Program: Visit nationalacademies.org/gulf/about
- About this Funding Opportunity: Submit questions about this opportunity to gulfgrants@nas.edu. All information contained in this document is also available online at nationalacademies.org/gulf/grants/he-4.
- Sign up for e-updates to receive the most current information about activities and funding opportunities.

Online Application System: gulfresearchprogram.fluidreview.com

Important Version Information and Revision Notes

Version 1.3: Corrected a typo pertaining to letters of commitment.

Version 1.2: Changed LOI encourage/discourage notification date and full proposal due date.
Version 1.1: Corrected description pertaining to budget attachment for full proposal.

AWARD INFORMATION

Award Duration:	Grants will be awarded to support projects up to 36 months in length.
Total Amount Available:	$5 million
Estimated # of Awards:	To be determined. Resources made available under this funding opportunity will depend on the quality of proposals received and the budgets proposed by successful applicants. The Gulf Research Program reserves the right to select for negotiation all, some, one, or none of the proposals received in response to this solicitation.
Award Notification:	Winter 2020

KEY DATES

Letter of Intent (LOI):	*A Letter of Intent is required for this funding opportunity.* March 27, 2019: Online LOI submission opens **May 22, 2019, 5:00 pm ET: Deadline for submission of LOI**
Full Proposal:	*ONLY open to applicants who submitted a Letter of Intent.* May 23, 2019: Online full proposal submission opens **July 31, 2019, 5:00 pm ET: Deadline for submission of full proposal**

PURPOSE

The Gulf Research Program (GRP) seeks to support use-inspired research to improve understanding of how coastal ecosystems in the U.S. Gulf of Mexico region are affected by or interact with natural processes (e.g., sea level rise, watershed hydrology) and human activities (e.g., coastal development, energy-related infrastructure, recreational and commercial fisheries) as part of a coupled natural-human system.

CONTEXT

As highlighted in a recent National Academies report, Understanding the Long-Term Evolution of the Coupled Natural-Human Coastal System: The Future of the U.S. Gulf Coast (also see Report Highlights), the Gulf Coast is a complex system with deeply interconnected natural and human interactions and feedbacks. The physical landscape is dynamic and subject to processes such as hurricanes, sea level rise, and subsidence. Within this landscape, diverse ecosystems experience changes in external inputs, including quantities of nutrients, freshwater, and sediment that in turn affect the function and dynamics of those ecosystems. In parallel to these natural processes, human activities, such as coastal development and the presence of industrial activities, also affect the natural landscape. Given these interconnectivities, supporting the resilience and maintaining the habitability of the Gulf Coast in the future requires:

- Improved understanding of the different components of this coupled natural-human coastal system and their interactions and feedbacks, and

- Effective use of this understanding in related decision-making and management actions.

FUNDING PRIORITIES

To advance overall understanding of the coupled natural-human system of the U.S. Gulf Coast, we seek projects that address critical research gaps related to increasing understanding of the function and dynamics of U.S. Gulf Coast ecosystems within the broader context of the interactions and feedbacks between ecosystems and natural processes and/or human activities (e.g., those related to sea level rise, changes in hydrology and sediment loading, increasing storm intensity and frequency, coastal development, industrial activity). It is expected that projects will be directly applicable to informing decision-making and management actions in the Gulf Coast region either through conducting needed foundational science and/or by developing a new or improving an existing actionable output (e.g., decision tool).

The GRP is especially looking for projects that increase understanding of:
- the effects of current and predicted future physical and environmental conditions on the distribution and abundance of key ecosystems along the Gulf Coast, including – but not limited to – salt marshes, oyster reefs, dunes, beaches, seagrass meadows, barrier islands, and mangrove forests; and/or
- the individual or combined role of specific environmental conditions, physical forcing, climate change, and coastal development on the function and dynamics of Gulf Coast ecosystems.

Examples of potential projects could include:
- A modeling study that focuses on understanding the relative importance of specific physical and/or human factors (e.g., a hurricane or an oil spill) on a particular ecosystem function (e.g., nutrient processing) or ecosystem distribution (e.g., mangroves).
- A field study that includes collection of critical data to inform an integrated model for planning; for example, how an oyster reef might change in response to a coastal development project or other human activities.
- A data synthesis study that combines existing data from multiple disciplines, and perhaps includes some original data collection, to provide new insight into how rising sea levels may affect marsh distribution.

PROJECT GUIDELINES

To be considered responsive to this Request for Applications topic, applications must:

- **Clearly describe how the proposed project is critical to advancing understanding of the coupled human-natural system of the U.S. Gulf Coast.**
    - Applicants may choose to focus on the interactions and feedbacks between ecosystems and natural processes, human activities, or a combination of natural processes and human activities; however, applicants must clearly articulate how their project will advance understanding of the coupled system.
    - Regardless of the project scope, applicants should clearly articulate the broader context of how the project focus is impacted by or affects human activities.
    - Projects should focus on Gulf Coast ecosystems.

- **Clearly describe the data approach for the project.** For example, applicants should clearly indicate whether the project includes new data collection, synthesis and analysis, and/or modeling as well as provide an explanation that justifies the proposed approach.

- **Include a multidisciplinary team.** As this RFA addresses problems requiring a collaborative, multidisciplinary approach, it is expected that the makeup of the proposed project team will reflect this to the degree appropriate to the particular project.

- **Clearly articulate how the project results or outputs will be useful to intended users either now or in the future**

to advance related decision-making or management actions.
- ○ Details must be included on the intended end users of the knowledge, tool, or other outputs generated either now or in the future (e.g., specific decision-makers or resource managers).
- ○ A clear description of a pathway(s) for translation, application, and/or implementation of research findings into further action and/or decision-making must also be included. Although publication in scholarly journals should be a component of this, it is expected that this step will involve an outreach or engagement activity or set of activities that go beyond publication in scholarly journals.

ELIGIBILITY

These terms mean the following when referenced:
- **Applicant:** The organization under which an application is being submitted (i.e., applying organization).
- **Project director:** The individual who will lead the proposed project. The project director is responsible for the direction and intellectual design of the project and has primary responsibility for project execution and the submission of all required reports to GRP. Project directors usually initiate applications that are officially submitted by their employing organizations (the applicant). When initiating an application, the project director is responsible for ensuring it meets all the requirements outlined by the Gulf Research Program as well as any requirements set by their employing organization.
- **Key personnel:** Individuals who share in the responsibility of the direction or intellectual design of the proposed project and/or contribute to the execution of the proposed project in a substantive, measurable way.

The Gulf Research Program welcomes applications from all types of U.S. organizations, excluding federal agencies, on behalf of qualified individuals.

Applications must adhere to the following to be eligible:
- U.S. organizations (excluding federal agencies) that have a valid federal tax ID number are eligible to apply.
- 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.
- This funding opportunity is for distinct activities only. Proposed activities that are part of a broader, existing effort or "project" may only be eligible if the application clearly demonstrates that the funding request is for distinct activities that would not otherwise occur.
- Activities currently under consideration for funding from other sources are not eligible. The status of "currently under consideration for funding from other sources" is intended to mean that full or final application materials have been submitted to another entity to request funding. Submission of a letter of intent or pre-proposal to another funding source does not constitute an activity being "currently under consideration for funding from other sources" if that submission is a step that precedes submission of full or final application materials in an application process.
- U.S. organizations may partner with international organizations; a U.S. organization must be the applicant, but applicants may include key personnel from and subawards to non-U.S. organizations. Please note that legal restrictions may prohibit transactions, including subawards, between U.S. entities and entities within certain foreign countries.
- U.S. federal agencies are not eligible to receive Gulf Research Program funding as applicants or subawardees, although their employees may be non-funded collaborators. Any proposed collaboration with employees of a U.S. federal agency should not involve any transfer of Gulf Research Program funding to the agency and must be in compliance with all applicable federal statutes and regulations. This will be reviewed on a case-by-case basis to determine if this requirement is met.
- Activities involving advocacy or lobbying are not eligible.

Individuals named as project director or key personnel in an application must adhere to the following:

- An individual may be proposed as project director in only one application. If an individual is proposed as project director in any application, that individual may also be proposed as key personnel in up to two additional applications.
- An individual not proposed as a project director in any application may be named as key personnel in up to three applications.
- It is the responsibility of each individual being named as project director or key personnel in any application to ensure that they are not named in more than three total applications.

APPLICATION SUBMISSION AND REVIEW

Applications for this funding opportunity have two stages with different required components: 1) a letter of intent and 2) a full proposal. Project directors are advised to review the application preparation and submission instructions carefully and submit any questions to gulfgrants@nas.edu well in advance of the submission deadlines. Although the Gulf Research Program strives to respond to applicants' questions within two business days, the response time depends on the volume of questions received and the complexity of the question asked. The Gulf Research Program does not guarantee that applicants' questions will be answered before submission deadlines. Applicants are advised to submit LOIs and full proposals well in advance of the submission deadlines as a precaution against unanticipated delays. Please plan ahead.

Please be advised that the Gulf Research Program expects applicants to have reviewed the Grant Agreement (see "Grant Terms and Conditions" on page 13) prior to submitting an application to ensure that the applicant is aware of the applicable terms under which the grant is offered. It is the policy of the 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.

LETTER OF INTENT

A letter of intent (LOI) is required for this funding opportunity and must be submitted via the online application system. LOIs submitted by other means (including mail, fax, or e-mail) will not be considered. LOI application materials submitted in any language other than English will not be considered. The LOI is not binding and is used by program staff to gauge the size and range of the competition so that staff can better manage the selection of reviewers. In addition, the information contained in a LOI is used to help avoid potential conflicts of interest in the review process. All complete LOIs will be reviewed internally by Gulf Research Program and other National Academies staff to evaluate overall clarity of the idea and relevance to the RFA using the Letter of Intent Review Rubric.

The LOI must include the following elements:

- Required Eligibility Form

- Required Contact Information Form that includes:
    - I.   Required Information:
        1. Applicant
        2. Project director
        3. Authorized organizational representative (AOR)
        4. Grant administrator (if different from AOR)

II. Optional Information: Information provided in this section will not be used in or influence any portion of the application review process:

5. Suggestions for reviewers: The suggestions may be considered for the peer review of full proposals, but the selection of reviewers is the responsibility of the Gulf Research Program.

6. How did you hear about this funding opportunity?

7. Demographic information

- Required [Letter of Intent Form](#) that includes information about the:
  I. Project Personnel:
    1. Project director
    2. Key personnel
    3. Involvement of project director or key personnel in other applications
  II. Project Details:
    4. Project title (up to 15 words)
    5. Project key words (up to 5 words)
    6. Overview of proposed project (up to 1,250 words)
    7. Research involving human subjects (if applicable)

The project director will be notified of the Gulf Research Program's decision to either encourage or discourage submission of a full proposal by June 21, 2019. The Gulf Research Program's decision is advisory only, which means that submitters of both favorably and unfavorably reviewed LOIs are eligible to submit full proposals. The intent of encourage/discourage decisions is to improve the overall quality of the full proposal and encourage re-thinking, particularly if a LOI is not responsive to the RFA topic.

FULL PROPOSAL

Full proposals must be submitted via the [online application system](#), and they cannot be submitted if the applicant did not submit an LOI. Proposals submitted by other means (including mail, fax, or e-mail) will not be considered. Full proposal application materials submitted in any language other than English will not be considered. The online form for submission of a full proposal will be available on May 23, 2019, to applicants who have submitted an LOI. Conformance of proposals to instructions provided is required and will be strictly enforced. The Gulf Research Program may reject, without review, proposals that are not consistent with the instructions.

The information provided in the LOI is non-binding. At the full proposal stage, you have the opportunity to change or update project information based on feedback received from the LOI review or changes in the project plan since the LOI was submitted. You may not change the applicant (i.e., applying organization).

The full proposal must include the following elements:

- Required [Full Proposal Form](#) that includes information about the:
  I. Project Personnel:
    1. Project director
    2. Key personnel
    3. Involvement of project director or key personnel in other applications

II.   Project Details:

4.   Project title (up to 15 words)

5.   Project key words (up to 5 words)

6.   Project summary (up to 300 words)

7.   Project description (up to 5,000 words)

8.   References cited

9.   Data management plan (up to 1,500 words) [Please see the GRP's Data Management Policy]

10. Facilities, equipment, and other resources (up to 500 words)

11. Research involving human subjects (if applicable)

III. Project Budget:

12. Total budget requested

13. Budget justification (up to 2,000 words). View a sample budget justification.

14. Sub-award to FFRDC(s) or UARC(s) (if applicable)

- Attachments:

  I.   Required Attachments:

  NOTE: The Gulf Research Program may reject, without review, any applications with required attachments that are missing requested information or that are otherwise not consistent with the instructions outlined.

  1.   Budget Form: Complete this form to provide information on the proposed budget. Budget requests should be developed commensurate with the support needed to achieve the project goals. Please note that cost sharing is prohibited.

  2.   Resume(s): A resume is required for the project director and every individual identified as key personnel. Resumes may not exceed two pages per person. See resume specifications for additional guidance. Please combine all resumes into a single PDF document before uploading as an attachment. The PDF must not include resumes of any individual who has not been named as a project director or key personnel in the "Project Personnel" section. It is the responsibility of the project director to ensure that the key personnel listed in the "Project Personnel" section are correct and match the resumes submitted.

  3.   Collaborators and Other Affiliations Form: The purpose of this form is to help us eliminate potential conflicts of interest during our reviewer recruitment. Complete this form to provide information on the following for the project director and all key personnel named in the "Project Personnel" section:

       ○   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.

       ○   The individual's own graduate and postdoctoral advisor(s) and their current organizational affiliations.

       ○   All persons (including their current organizational affiliations) with whom the individual has had an association as a graduate or postdoctoral advisor.

  If an individual does not have any collaborators or other affiliations pertaining to the above situations, that must be indicated within the section of the form for that individual. It is the responsibility of the project director to ensure that the key personnel listed in the "Project Personnel" section are correct and match those listed in the Collaborators and Other Affiliations

Form.

4. [Current and Pending Support Form](): Complete this form to provide information on support from projects or activities currently underway and pending support for future projects or activities of the project director and all key personnel named in the "Project Personnel" section. All current or pending 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 for every member of the project team. The project proposed in this application and all other projects or activities requiring a portion of time of the project director or key personnel must be included, even if an individual receives no salary support from the projects or activities. If an individual does not have any other current or pending support or is unable to document that information for whatever reason, that must be indicated within the section of the form for that individual. 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. It is the responsibility of the project director to ensure that the key personnel listed in the "Project Personnel" section are correct and match those listed in the Current and Pending Support Form.

5. [Timeline](): A timeline is required that portrays key project activities or events – including tasks, milestones, outputs, or deliverables – using a Gantt chart. During the application review process, the timeline will be used by reviewers to assess project feasibility. Should a project be funded, the timeline should allow project directors to track their progress and help Gulf Research Program staff monitor whether a project is on schedule. Project activities or events in the timeline should serve as unambiguous indicators and measures of progress. Projects should have a sufficient number of key activities or events to ensure that a timeline is adequately portrayed and overall progress can be reasonably tracked over distinct time periods. Gantt charts should be limited to one-page (8.5" x 11") and uploaded as a PDF.

II. Optional Attachments:
   NOTE: The Gulf Research Program may reject inclusion of any optional attachments in the review process if the attachments are not consistent with the instructions outlined.

6. Equations and visual elements: The text box for the "Project Description" does not support equations or visual elements (e.g., figures, tables, images, maps). Applicants may upload a single PDF document with 1) a one-page list of equations and 2) up to five visual elements , each on one page, *to support the information included in the project description*. Visual elements must be labeled sequentially (e.g., Figure 1, Table 1). The total number of pages of visual elements in the PDF may not exceed five pages. Only equations and visual elements can be included in this attachment and only information that is directly relevant to the equations or visual elements included (e.g., figure legends) is acceptable. Attempts to use this attachment to provide any information beyond this stated purpose may result in removal of the attachment from the review process.

7. Letters of commitment: Applicants may upload a PDF with letters of commitment from collaborators or organizations/individuals anticipated to *inform or participate in the project in a substantial way*. Each letter of commitment should be brief and no longer than one page. Letters of commitment must not include itemized budgets or other information that is required in other sections of the application. Please combine all letters of commitment into a single PDF before uploading as an attachment.

Research Involving Human Subjects

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 proposal with their local IRB at the same time the proposal is submitted to the Gulf Research Program so that any approval procedure determined as necessary will not delay the award process. A proposal may be submitted to the Gulf Research Program prior to receiving IRB approval or being granted exemption; however, if the proposal 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 §46.104], 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.

FULL PROPOSAL PEER REVIEW PROCESS

All complete full proposals will be sent to external reviewers for panel review. The external review panel will evaluate the proposals based on the Full Proposal Merit Review Criteria, discuss the merit and all received comments for each proposal, then rank the proposals. The Gulf Research Program will make reasonable efforts to develop a review panel in which external reviewers will not be affiliated with any institution that submitted proposals. Any external reviewer with any conflict(s) of interest will be recused from reviewing or participating in any discussion of any proposal(s) with which s/he has a conflict of interest. Program staff will examine the full proposals and prepare a grant-funding plan taking into consideration the review panel's ranking of the proposals, summaries from the panel discussion, and the program's funding availability, current portfolio, objectives, and goals. A subset of current and former Gulf Research Program Advisory Board members oversee the grant-funding plan and recommend a list of projects for funding. Current and former Advisory Board members are recused from individual proposals involving a conflict of interest, such as having an affiliation with an institution that submitted a proposal. The final decision for funding will be made by the Gulf Research Program of the National Academies of Sciences, Engineering, and Medicine.

All review processes will be governed by the Gulf Research Program's Conflict of Interest and Confidentiality Policies.

Full Proposal Merit Review Criteria

Proposals will be evaluated on the basis of three broad review criteria. The bullets under each criterion are meant to guide proposers in writing their proposals and guide peer reviewers on what to consider when judging a proposal; the bullets are illustrative and not intended to be all encompassing. Reviewers may raise additional issues that are not covered by the bullets under each criterion.

Relevance (40%)
- Does the proposed project seek to advance understanding of a specific aspect(s) of ecosystem function and/or dynamics of the U.S. Gulf Coast?
- Is the project focus articulated in relation to how it is impacted by human activities and/or affects human activities?
- Will the project contribute to significantly advancing understanding of the U.S. Gulf Coast as a coupled natural-human system?
- Are specific end users (e.g., specific decision-makers or resource managers) of the proposed project

outputs clearly identified?
- Does the proposed project plan include activities that ensure that user needs will be addressed?
- Is there a clear description of a pathway(s) for translation, application, and/or implementation of research findings into further action and/or decision-making that extends beyond journal publication?
- Will the project outputs, including knowledge and/or tools, significantly contribute to advancing decision-making now or in the future?

Technical and Scientific Merit (40%)
- Is there evidence that the proposed project team understands the current state of knowledge of the issue(s) to be addressed?
- Is the overall strategy, methodology, and analyses scientifically and/or technically valid and appropriate to accomplish the specific aims of the project?
- Is the plan for project implementation clear, appropriate, and feasible as evidenced by the project description and associated timeline?
- Does the proposal include a data management plan that is appropriate for the scope of work?
- Is the budget commensurate with the proposed work?

Project Personnel and Organizational Supports (20%)
- Relative to the stage of career, how well qualified are the project director and other project personnel (if applicable) to conduct the proposed activities?
- Are the disciplines and perspectives represented by the key personnel and their institutions appropriate for the scope of the project?
- Does the proposal demonstrate that the project personnel would have access to the resources needed to conduct the proposed project (for example, institutional support, personnel, field sites, external data, equipment, and/or other physical resources)?

DATA MANAGEMENT POLICY

The Gulf Research Program's Data Management Policy applies to this RFA. To facilitate sharing of data and information products, all full proposals submitted to the Gulf Research Program must include a data management plan. 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." Please see the Gulf Research Program's Data Management Policy and Data Management web page for information on what must be included in the data management plan submitted as part of this application.

MAKING THE AWARD

Selection Notice

When the evaluation of all proposals received 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 Gulf Research Program 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 Gulf Research Program 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 strictly 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 Gulf Research Program 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 Gulf Research Program 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

Reporting Requirements

After an award is conferred, the grantee shall provide a semi-annual financial report to the Gulf Research Program to report on grant expenditures to date under the grant. The grantee shall provide an annual written report to the Gulf Research Program 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 the data management plan will be monitored through the annual and final report process. Annual project reports required for all multi-year awards must include an account of ongoing data management and the accessibility (e.g., sharing) of research information products (e.g., digital object identifiers [DOIs] or accession numbers for digital information; citations of relevant publications, conference proceedings, and conference presentations; and other types of dissemination). In addition, the report must articulate any current or foreseeable changes to the original plan. Continued funding for subsequent years of multi-year projects will be contingent upon acceptable performance, which includes adherence to the data management plan.

Final project reports, which are required for all awards, must describe the implementation of the data management plan. They must also clearly describe any changes from the original plan. At a minimum, the final report should include descriptions of the following:

- Data, datasets, and information products produced during the award period.
- Metadata (that describe the project and that describe the data and other information products) produced

     during the award period.

- Data, other information products, and associated metadata that will be maintained or curated after the award expires.
- Dissemination activities (e.g., publication of results and data, presentation of results and data).
- The curation facility or facilities (e.g., digital repository) where project data and other information products have been deposited or are being curated for long-term management and accessibility.
- Verification that the data and other information products are, or at least will be, widely discoverable and accessible (e.g., DOIs for data and other information products).
- In addition to evaluating the final report descriptions, the Gulf Research Program may review any digital products curated in digital repositories or otherwise curated to ensure that they are properly preserved, documented, and accessible.

Scientific Integrity

A fundamental purpose of the Gulf Research Program is to facilitate the advancement of knowledge and the application of the science to address challenges relevant to the Program's mission. All activities of the Gulf Research Program will be conducted to meet the highest standards of scientific integrity. All grantees have a responsibility to use the funds wisely. To continue the emphasis on scientific integrity throughout the award period, the Gulf Research Program will ask all researchers, trainees, and fellows to comply with professional standards as defined by the National Academies of Sciences, Engineering, and Medicine report *On Being A Scientist: A Guide to Responsible Conduct in Research*.

GRANT TERMS AND CONDITIONS

Please be advised that the Gulf Research Program expects applicants to have reviewed the Grant Agreement prior to submitting an application to ensure that the applicant is aware of the applicable terms under which the grant is offered. 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.

Sample Grant Agreements for:

- Public institutions
- Private institutions

URLs FOR IMPORTANT HYPERLINKS

Below are shortened web addresses that will take you to the destination of important hyperlinks present in this document if you are viewing it in hard copy. Enter the URLs into a browser exactly as they appear, including letter case.

- Online version of RFA: nationalacademies.org/gulf/grants/he-4
- Sign up for e-updates: bit.ly/grp-updates
- GRP online application system: bit.ly/grp-appsystem
- *Understanding the Long-Term Evolution of the Coupled Natural-Human Coastal System:*
  - Full report: bit.ly/2FDS5oh
  - Report Highlights: bit.ly/2U0MscB

- Letter of Intent Review Rubric: bit.ly/2uvMKZL
- Sample Eligibility Form: bit.ly/2WiYdaW
- Sample Contact Information Form: bit.ly/2FvqXGy
- Sample Letter of Intent Form: bit.ly/2HGT6Op
- Sample Full Proposal Form: bit.ly/2Wrouny
- Sample Budget Justification: bit.ly/2EuJ5lh
- Budget Form: bit.ly/2CPnQsL
- Resume Specifications: bit.ly/2UNG7xX
- Collaborators and Other Affiliations Form: bit.ly/2SUGfKi
- Current and Pending Support Form: bit.ly/2USvjxY
- Sample Timeline: bit.ly/2S5CfX7
- Code of Federal Regulations—45 CFR §46.104: bit.ly/2Yvjm3l
- GRP Conflict of Interest and Confidentiality Policies: bit.ly/2QEl7ez
- GRP Data Management Policy: bit.ly/2Ly5DFv
- GRP Data Management web page: bit.ly/2CLt19T
- *On Being A Scientist*: bit.ly/onbeingsci
- Sample Grant Agreement—Public Institution: bit.ly/2EnBFjD
- Sample Grant Agreement—Private Institution: bit.ly/2Erlbab

QUESTIONS?

- See our Frequently Asked Questions pertaining to grants.
- Send questions about the grants to gulfgrants@nas.edu.