Addressing the Impacts of Multiple Stressors on Shellfish Aquaculture through Research/Industry Partnerships

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NOTICE OF FUNDING OPPORTUNITY

EXECUTIVE SUMMARY

Federal Agency Name(s): Oceanic and Atmospheric Research (OAR), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce

Funding Opportunity Title: Addressing the Impacts of Multiple Stressors on Shellfish Aquaculture through Research/Industry Partnerships

Announcement Type: Initial

Funding Opportunity Number: NOAA-OAR-SG-2021-2006704

Catalog of Federal Domestic Assistance (CFDA) Number: 11.417, Sea Grant Support

Dates:
Letters of intent must be received by 11:59 pm Eastern Daylight Time on December 15, 2020.
Full proposals must be received by 11:59 pm Eastern Daylight Time on March 16, 2021.

Funding Opportunity Description:
The National Sea Grant Office (NSGO) and the Ocean Acidification Program (OAP) are seeking applications that establish, continue, and/or expand collaborations between researchers and the shellfish aquaculture industry. Specifically, applications to this competition should utilize new or existing research/industry partnerships to study how ocean and coastal acidification in combination with other stressors impacts shellfish aquaculture. Projects should utilize multiple parameter physical, chemical, or biological observing systems and/or conduct multiple stressor experimental research. The priorities of this funding opportunity are to (1) build or strengthen relationships between the shellfish aquaculture industry and the aquaculture research community (including university, industry, private sector, tribal, state, and/or federal scientists representing diverse perspectives), (2) develop scientific knowledge on the impact of ocean and coastal acidification in combination with other stressors to shellfish aquaculture, and (3) create data products, tools, technologies, management practices, or other deliverables that are broadly applicable to building resilience within the shellfish aquaculture sector.

Subject to the availability of funding, NSGO and OAP anticipate approximately $2,000,000 total will be available to support approximately 2-6 projects, with each project funded at the approximate level of $100,000 - $300,000 per year for 1-3 years.

This document sets out requirements for submitting to NOAA-OAR-SG-2021-2006704. Additional guidance and tips on how best to prepare an application are provided in the Sea Grant General Application Guide available at

(https://seagrant.noaa.gov/Portals/1/Guidance/SeaGrantGeneralApplicationGuide.pdf)

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

Shellfish aquaculture is among the fastest growing sectors of food production, both globally and nationally. However, the vulnerability of shellfish to multiple stressors (such as acidification/pH, temperature, oxygen availability, and disease) act as a constraint on the growth of the aquaculture industry. Research has not kept up with grower concerns regarding the effect of multiple stressors on shellfish production, particularly concerns related to ocean and coastal acidification. Moreover, shellfish aquaculture research is often inadequately communicated to growers or fails to be transformed into tools, technologies, or management practices that are useful to the industry.

This competition seeks to establish, continue, and/or expand collaboration between researchers and shellfish growers in order to study and address how acidification and at least one other environmental stressor affects the U.S. shellfish aquaculture industry. Applications must include at least one researcher and one shellfish grower acting as co-Principal Investigators (co-PIs), and the proposed work must utilize a co-production of knowledge framework. In this context, co-production of knowledge is the process by which information is created when shellfish growers collaborate with researchers throughout all aspects of the scientific process, from project conceptualization to execution to dissemination of knowledge and development of deliverables. Applicants are strongly encouraged to collaborate with existing communities of practice such as NSGO-supported Aquaculture Collaboratives (HUBs), members of the OAP-supported Coastal Acidification Networks (CANs), or other NOAA-supported groups.

In addition to ocean and coastal acidification, potential stressors subject to investigation include (but are not limited to) temperature stress, salinity stress, hypoxia, pathogens and parasites, harmful algal blooms, and environmental contaminants.

Competition outcomes will bolster NOAA’s Blue Economy Initiative by supporting U.S. seafood production and building coastal resiliency. Specifically, these investments support the goals of NOAA and the Department of Commerce and are consistent with Sea Grant’s focus area of Sustainable Fisheries and Aquaculture (SFA) and the Sea Grant Network’s 10-year Aquaculture Vision (https://seagrant.noaa.gov/Portals/0/Documents/Handouts/AquacultureVisionNOAA_March2016.pdf). Likewise, these investments are aligned with the 2020-2029 NOAA Ocean and Great Lakes Acidification Research Plan

(https://oceanacidification.noaa.gov/researchplan2020.aspx) and support Objective 2.3 of the NOAA ‘Omics Strategy (https://nrc.noaa.gov/LinkClick.aspx?fileticket=RReWVFNjr5I%3D&tabid=92&portalid=0) .

B. Program Priorities

All proposals must address the following three priority areas:

(1) Build or strengthen relationships between the shellfish industry and the research community including university, industry, private sector, tribal, state, and/or federal scientists. The strongest applications will bolster an existing community of practice, and will demonstrate significant collaboration between researchers and shellfish growers through a co-production of knowledge framework. There should be an equitable distribution of funds to sustain researcher/industry relationships, which includes providing lines of funding directly to shellfish industry partners in order to support their engagement with the project (e.g. support salary). This is particularly important during the COVID-19 pandemic, which has caused the shellfish aquaculture industry enormous economic hardship.

(2) Develop scientific knowledge on the impact of ocean and coastal acidification in combination with other stressors to shellfish aquaculture. The strongest applicants will demonstrate how acidification in combination with another stressor affects shellfish aquaculture production and create tools to promote resilience. Metrics of shellfish aquaculture production include (but are not limited to) shellfish growth, survival, reproduction, condition (i.e. health), and/or marketability. Besides ocean and coastal acidification, other shellfish stressors include (but are not limited to) temperature stress, salinity stress, hypoxia, pathogens and parasites, harmful algal blooms, and environmental contaminants. Applicants may conduct observational research with time series data or conduct controlled experimental research on regionally-relevant multi-stressor impacts to shellfish production. Applicants may conduct both observational and experimental research, although this is not required. Projects may be geared towards the hatchery, nursery, and/or growout phases of aquaculture production. Preferred applications will support scientific analyses of the collected data that produce results which can be published in peer-reviewed journals.

(3) Create data products, tools, technologies, management practices, or other deliverables that are broadly applicable to building resilience within the shellfish aquaculture sector. The strongest applications will produce deliverables responsive to current shellfish aquaculture industry needs across the greater geographic region of the applicants, rather than benefiting a

single operation or being relevant to a single culture area. Additionally, a thorough and thoughtful outreach and technology transfer plan should be included in the application to ensure that growers learn about the outcomes of the project. Applicants should note that the intent of this call is NOT to simply develop new sensor technologies. It is preferred that funding is used to leverage available sensors or other sampling methods, reconfigure observing systems, and/or establish new partnerships across existing observing systems. However, procurement of some additional assets may be appropriate, for example building out an existing CTD sonde by adding a pH sensor.

The National Sea Grant College Program (NSGO) and the Ocean Acidification Program (OAP) champion diversity, equity, and inclusion (DEI) by recruiting, retaining and preparing a diverse workforce, and proactively engaging and serving the diverse populations of coastal communities. NSGO and OAP are committed to building inclusive research, extension, communication and education programs that serve people with unique backgrounds, circumstances, needs, perspectives, and ways of thinking. We encourage applicants of all ages, races, ethnicities, national origins, gender identities, sexual orientations, disabilities, cultures, religions, citizenship types, marital statuses, education levels, job classifications, veteran status types, and socioeconomic status types to apply for this opportunity.

C. Program Authority

Statutory authority for this program is provided under the National Sea Grant College Program Act of 1966, as amended (33 USC 1121 et seq.) and the Federal Ocean Acidification Research and Monitoring Act (33 U.S.C. Chapter 50, Sec. 3701-3708).

The National Sea Grant College Program was enacted by the U.S. Congress in 1966 (amended in 2008, Public Law 110-394) to support leveraged federal and state partnership that harness the intellectual capacity of the nation’s universities and research institutions to solve problems and generate opportunities in coastal communities.

The Ocean Acidification Program was established by the Federal Ocean Acidification Research and Monitoring (FOARAM) Act of 2009. The OAP coordinates ocean acidification research, monitoring, and other activities to improve our understanding of how the chemistry of the ocean is changing, how variable that change is by region, and what impacts these changes are having on marine organisms, people, and the local, regional, and national economies that depend on the ocean.

II. Award Information

A. Funding Availability

Subject to the availability of funding, this announcement describes how eligible applicants should apply for the funding opportunity Addressing the Impacts of Multiple Stressors on Shellfish Aquaculture through Research/Industry Partnerships. It is anticipated that a total of approximately $2,000,000 may be available to support approximately 2-6 projects, with each project funded at the approximate level of $100,000 - $300,000 per year for 1-3 years.

There is no guarantee that funds will be available to make awards, or that any application will be selected for funding. If an applicant incurs any costs prior to receiving an award agreement signed by an authorized NOAA official, it does so at its own risk of not being selected or of these costs not being included in a subsequent award. NOAA and DOC will not be responsible for any incurred project costs if this program fails to receive full funding.

B. Project/Award Period

The anticipated start date is September 1, 2021, with projects to be completed no later than August 31, 2024. Subsequent funding is contingent on the availability of out year appropriations and performance under the current award. Pre-award spending may be authorized 90 days prior to the start date of the award.

C. Type of Funding Instrument

Successful proposals will be funded through one of two funding instruments, a grant or cooperative agreement, depending upon the amount of collaboration, participation, or involvement by NOAA in the management of the project. A cooperative agreement is used when substantial involvement of the federal government during performance of the proposed work is anticipated. Examples of substantial involvement may include (but are not limited to) collaboration between NOAA scientists and non-federal scientists. Funding for contractual arrangements for services or products for delivery to NOAA is not available under this notice.

III. Eligibility Information

A. Eligible Applicants

The following entities are eligible to submit to this opportunity:

Eligible applicants are United States institutions of higher education; other nonprofits; commercial organizations; state, local, and tribal governments.

PLEASE NOTE: Federal employees may act as co-PIs but may NOT act as the PI that submits the application package to grants.gov. In addition, federal labs and offices can make available specialized expertise, facilities, and equipment to applicants as part of a proposal, however the value of such assets CANNOT be used as match (see FAQs found at, https://seagrant.noaa.gov/Funding). If your application includes federal partners, please reach out to the agency contacts listed in section VII of this notice; you will need additional information regarding your budget.

PLEASE NOTE: Before non-NOAA federal applicants may be funded, they must demonstrate that they have legal authority to receive funds from another federal agency in excess of their appropriation. Because this announcement is not proposing to procure goods or services from applicants, the Economy Act (31 USC 1535) is not an appropriate legal basis.

Proposals selected for funding from non-federal applicants will be funded through a grant or cooperative agreement as described above in section II. C. of this notice. Proposals selected for funding with NOAA researchers shall be effected by an intra-agency fund transfer. Proposals selected for funding from a non-NOAA federal agency will be funded through an inter-agency transfer.

If none of the co-PIs listed on an application are affiliated with a Sea Grant program, then it is recommended, but not required, that the co-PIs receive a letter of support for their application from their local Sea Grant director. Letters of support should be submitted with the full proposal application.

B. Cost Sharing or Matching Requirement

Non-federal matching funds equal to at least 25 percent of the federal funding request must be provided unless a waiver justified by statute is granted. In other words, for every $4 in federal funds requested, at least $1 in non-federal matching funds must be provided. If you believe your application may qualify for a waiver, please contact the National Sea Grant Office before submission to discuss it. The cumulative match at the end of each year of the grant must not fall below 25 percent of the cumulative federal request up to that point. In other words, applicants may not ‘under’ match in year one and ‘over’ match in year two. In-kind contributions directly supporting this application may count towards this matching requirement. See the Sea Grant General Application Guide (https://seagrant.noaa.gov/Portals/1/Guidance/SeaGrantGeneralApplicationGuide.pdf) for more information.

C. Other Criteria that Affect Eligibility

Letters of Intent (LOI) are required for this announcement. A full proposal that did not submit a LOI will not be considered and will be returned to the applicant without review.

Each application must include at least one researcher and at least one shellfish grower acting as co-Principal Investigators (co-PIs), either may be the lead PI. Shellfish growers may be from the commercial/private sector, affiliated with non-profit organizations, or members of public-sector or community-based aquaculture programs. Additional co-PIs may include other researchers and growers, as well as individuals from other sectors. Other eligible co-PIs may include, but are not limited to, State Sea Grant aquaculture extension agents, researchers and policy makers in local, state, tribal, and federal governments, and other shellfish aquaculture stakeholders.

IV. Application and Submission Information

A. Address to Request Application Package

Application packages are available online and can be downloaded from www.grants.gov under opportunity NOAA-OAR-SG-2021-2006704. If an eligible applicant does not have access to the internet, please contact the agency contacts listed in Section VII for submission instructions.

B. Content and Form of Application

This section provides an overview of the Required Proposal Elements (and where to locate them). Applications must adhere to the provisions under "Required Proposal Elements" below. Failure to adhere to these provisions may result in a delay in award processing or rejection of the application, based on the extent of the noncompliance.

All required proposal elements should be single spaced in 12-point font with 1-inch margins.

Additional guidance on Sea Grant-specific form completion can be found here: Sea Grant General Application Guide (https://seagrant.noaa.gov/Portals/1/Guidance/SeaGrantGeneralApplicationGuide.pdf)

The submitting applicant should redact all Personally Identifiable Information (PII) in the application materials prior to final submission to grants.gov. PII that should be redacted from the application includes but is not limited to social security number, date of birth, student identification number (from transcripts) or other information which if lost, compromised, or disclosed without authorization, could result in harm, embarrassment, inconvenience, or unfairness to an individual.

Required Proposal Elements:

--Letter of Intent Requirements--

Letters of Intent (LOIs) will allow the NSGO and the OAP to gauge interest and topics that may be submitted. To be eligible for awards, LOIs must be received via email by the Program Managers (oar.hq.sg.aquaculture@noaa.gov) by 11:59 pm Eastern Time on Tuesday, December 15, 2020.

Letters of Intent must provide the following information:

1. Cover page (maximum 1 page)
  A. Project title and names, titles, affiliations, and contact information (email and phone number) of co-PIs
  B. Projects must include at least two co-PIs, one researcher and one shellfish grower
  C. Budget overview - Total cost and annual breakdown of requested funding by partner

2. Research Plan (maximum 1 page)
  A. A brief discussion of the focal topic, project objectives, approach, and expected results
  B. Include a brief budget justification that indicates the approximate funding to be requested and how it will be used

3. Statement describing plan for co-production of knowledge (maximum 1 page)
  A. How will the researchers and industry partners work together throughout the entire duration of the proposed work (from conceptualization to knowledge dissemination and deliverable development)? What are the responsibilities of each team member? How will team members communicate, and how often will they meet to discuss the project?
  B. Discuss how this proposal builds a new or strengthens an existing community of practice. Describe the composition of the community of practice and how it represents diverse perspectives.

Program managers from NOAA will review each LOI to determine whether it is responsive to the goals and priorities of this funding opportunity, as advertised in this notice. Emails to applicants are scheduled to be sent out approximately one month after the LOI due date to encourage or discourage a full application. The final decision to submit a full application will be made by the applicants, regardless of the recommendations made by the program manager. However, late LOIs will not be considered and any associated full applications will not be accepted.

In general, full proposals will be encouraged if the proposed work, as demonstrated in the LOI:
1. Shows relevance to the program priorities (stated above)
2. Clearly articulates the problems being addressed
3. Utilizes a co-production of knowledge framework to accomplish the scope of work
4. Sufficiently builds or strengthens a community of practice.

--Full Proposal Application Requirements--

A full proposal application must include the following elements:

1. Project Narrative. The Projects Narrative must include the following documents:

A. Project Description. The total number of pages in the project description should not exceed 17. Excess pages will not be included in the review. The works cited, CVs, letters of support, and current and pending support sections do not contribute to the page limit.

i. Cover page (1 page)

a. Project title and names, titles, affiliations, and contact information (email and phone) of co-PIs.

b. Budget overview - Total cost and annual breakdown of requested funding by partner

ii. Project background (suggested 3 pages)

a. Explain the specific problem(s) this project seeks to address and justify its importance.

iii. Project objectives (suggested ½ page)

a. Provide a list of clearly defined objectives. For each objective, provide a concise statement explaining how it is aligned with the goals and priorities of this funding opportunity.

iv. Project details (suggested 5 pages)

a. Provide an explanation of the methods you will use to address your project objectives. Explicitly explain how this project leverages the expertise of both researchers and growers.

v. Anticipated outcomes and deliverables (suggested 1 page)

a. What are the expected outcomes and deliverables related to the creation of scientific knowledge?

b. What are the expected outcomes and deliverables related to the creation of data products, tools, technologies, and management practices that can be directly applied to the current and future needs of the shellfish aquaculture industry?

vi. Project timeline (suggested 1 page)

a. Please provide a timeline for accomplishing the proposed work, which covers the entire duration of the project. Include approximate dates for key milestones related to the proposed work, including the accomplishment of anticipated outcomes and release of deliverables.

b. Applicants submitting proposals that involve the use of human test subjects should state so clearly in their application. These proposed research activities require approval of the applicant's Institutional Review Board (IRB) before such research can proceed. Applicants are responsible for obtaining IRB approval from their institution and providing that documentation to NOAA once the approval is obtained and prior to any NOAA-funded human subject testing. Proposals intending to use human test subjects should specify clearly in the timeline approximately when IRB approval will be obtained and when the testing is expected to occur.

vii. Statement describing plan for co-production of knowledge (suggested 2 pages)

a. This section should be a more detailed version of what the co-PIs produced for the LOI.

b. The statement of co-production should explain the process by which the growers and researchers collaborate throughout the scientific process that underpins the proposed work.

c. Discuss how this proposal builds a new or strengthens an existing community of practice. Describe the composition of the community of practice and how it represents diverse perspectives.

viii. Outreach and technology transfer plan (suggested 2 pages)

a. Provide a cohesive strategy to ensure that growers across the greater geographic region, beyond those who actively participate in the proposed work, will learn about the project's outcomes. Describe how the project outcomes will support the community of practice.

ix. Diversity statement (suggested 1 page)

a. NSGO and OAP recognize that they have a particular and unique opportunity to support NOAA's commitment to diversity and inclusion by taking an intentional step that encourages applicants to consider diversity and inclusion as part of their scientific projects. This action has the potential to make an impact on not only the diversity and inclusion in science at NOAA, but also beyond the agency.

b. In this section, describe how well the proposed activity broadens the participation of underrepresented groups (e.g., race/ethnicity, gender, sexual orientation, disability, geography, etc.) and how these groups are given a voice in the community of practice. Examples could include (but are not limited to) the full participation of women, persons with disabilities, and underrepresented minorities in conducting this work or benefitting from its outcomes.

c. Applicants are encouraged to review the resources and best practices compiled by

NSGO related to diversity, equity and inclusion: https://seagrant.noaa.gov/insideseagrant/Implementation/Network-Visioning/DiversityInclusion

x. Works cited (does not count towards page limit)

a. All in-text citations should be listed here.

xi. Curriculum vitae (CV) for each co-PI (does not count towards page limit)

a. Each person's CV should not be longer than 2 pages. Excess pages will not be included in the review.

xii. Letters of support (does not count towards page limit)

a. All letters of support should be included here.

xiii. Current and pending support (does not count towards page limit)

a. Describe any current or pending sources of support if applicable.

B. Abbreviated Environmental Compliance Questionnaire (OMB Control No. 0648-0538)

i. Applicants must ensure that the questionnaire is completed in full and includes detailed information regarding project location, methodology, and permits. Copies of all permits required for project activities should be included with application materials. If a permit is pending or planned, please provide this information.

ii. The questionnaire can be found here: https://seagrant.noaa.gov/insideseagrant/Implementation.

iii. Guidance on how to complete the questionnaire can be found here: https://seagrant.noaa.gov/Portals/1/Forms/NEPA%20Questionnaire%20-%20Guidance.pdf

C. Data Management Plan

i. All applications must include a Data Management Plan that is compliant with NOAA's Public Access to Research Results Plan (https://www.ngdc.noaa.gov/parr.html).

ii. The Data Management Plan should not exceed 2 pages.

iii. The Data Management Plan should include descriptions of the types of metadata and data expected to be created during the course of the project, plans for disseminating the metadata and data to the broader community, and plans for long-term archiving of the metadata and data. The National Centers for Environmental Information (NCEI) serves as the data management focal point for the NOAA Ocean Acidification Program (https://www.nodc.noaa.gov/oads/), and all data resulting from proposals selected for funding must be archived and accessible through NCEI.

2. Budget Narrative. The Budget Narrative must include the following budget documents (Sea Grant 90-4 Forms and Budget Justification) in the following order and format. Additional budget narrative guidance can be found at: https://www.noaa.gov/sites/default/files/atoms/files/gmd_budget_narrative_guidance_-_05-

24-2017_final.pdf

A. Sea Grant 90-4 Form (OMB Control No. 0648-0362). Sea Grant 90-4 Forms are required to provide budget breakdowns and budget justifications by year and object class for the proposal. A completed Sea Grant 90-4 Form should be completed for each project year, as well as a total budget for the entire project duration (i.e., Year 1, Year 2, Year 3, and Years 1-3). Guidance on filling out these forms is located in the Sea Grant General Application Guide.

B. Budget Justifications. For each year of the project, a Budget Justification is required. Each Budget Justification should explain the budget items in sufficient detail to enable review of the appropriateness of the funding requested. Each Budget Justification should be attached as a PDF to each Sea Grant 90-4 Form, as appropriate. Guidance on completing the Budget Justifications is located in the Sea Grant General Application Guide.

3. Overall Application. In addition to the forms required above, standard Federal Forms and Assurances are required for the overall application and can be found with the application package on Grants.gov or on the Sea Grant website (links found below). These include:

A. SF-424 Form (Grants.gov, OMB Control No. 4040-0004). This form, titled “Application for Federal Assistance,” must identify the entire funding period, as well as the federal funding amount being requested by the applicant and the non-federal matching fund amount. The form must be completed with the institution’s accurate EIN and DUNS and Point of Contact, and signed by the institution’s authorized representative or designee.

B. SF-424A Form (Grants.gov, OMB Control No. 4040-0006). This form, titled “Budget Information - Non-Construction Programs,” should describe the entire funding period in federal and non-federal dollars, for the entire application. Fill out Section B of this SF-424A form to show the overall budget breakdown by object class by year. Each federal and match year should have its own column. If there is insufficient space, an additional SF-424A Form, Extra Section B should be used (see below).

C. Additional SF-424A Form, Extra Section B (https://seagrant.noaa.gov/insideseagrant/Implementation, OMB Control No. 4060-0006). The SF-424A Form described above only includes space to report the applicant’s yearly federal and non-federal dollars over two years. If the application covers more than two years of federal and non-federal dollars, then please complete the Additional SF-424A, Extra Section B to report the yearly non-federal matching fund budget of the grant. Guidance on filling out the form is located in the Sea Grant How to Use Form “424A Extra Section B” Document: https://seagrant.noaa.gov/Portals/1/Forms/Instructions-424A-ExtraSection-B-form.pdf). This form is an outlier and will be added to the “Budget Narrative Attachment” section on Grants.gov, as described in Section IV. C. 2.

D. SF-424B Assurances (Grants.gov, OMB Control No. 4040-0007). The form, titled "Assurances – Non-Construction Programs," should be completed and signed by the institution's authorized representative or designee.

E. CD-511 (Grants.gov, US Department of Commerce). The form, titled "Certification Regarding Lobbying," should be completed and signed by the institution's authorized representative or designee. In some instances, the SF-LLL Disclosure of Lobbying Activities form may also be required. See the instructions on the CD-511 for further information.

F. SF-LLL (Grants.gov, OMB Control No. 0348-0046) if applicable. The form, titled "Disclosure of Lobbying Activities," should be completed and signed by the institution's authorized representative or designee, if appropriate.

C. Unique Entity Identifier and System for Award Management (SAM)

To enable the use of a universal identifier and to enhance the quality of information available to the public as required by the Federal Funding Accountability and Transparency Act, 31 U.S.C. 6101 note, to the extent applicable, any proposal awarded in response to this announcement will be required to use the System for Award Management (SAM), which may be accessed online at https://www.sam.gov/SAM/. Applicants are also required to use the Dun and Bradstreet Universal Numbering System, as identified in OMB guidance published at 2 CFR Parts 25, which may be accessed at: https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title02/2cfr25_main_02.tpl

D. Submission Dates and Times

Letters of Intent must be received via email by the Competition Manager (oar.hq.sg.aquaculture@noaa.gov) by 11:59 pm Eastern Time on Tuesday, December 15, 2020.

Full proposal applications must be submitted to Grants.gov by 11:59 pm Eastern Time on Tuesday, March 16, 2021.

Applicants should be aware that National Sea Grant Office and OAP staff will only be available to answer questions until 5:00 pm Eastern Time on deadline days (December 15, 2020 and March 16, 2021).

Please note: validation or rejection of an application by Grants.gov may take up to two business days after submission.

E. Intergovernmental Review

Applications under the National Sea Grant College Program are not subject to Executive

Order 12372, "Intergovernmental Review of Federal Programs."

F. Funding Restrictions

See Section III. A. Eligible Applicants for restrictions on the use of funds related to federal agencies, labs, and personnel.

The Sea Grant Act at 33 USC 1124(d)(2) states:
“No payment under any grant or contract under this section may be applied to:
(a) the purchase or rental of any land; or
(b) the purchase, rental, construction, preservation, or repair of any building, dock, or vessel; except that payment under any such grant or contract may be applied to the short-term rental of buildings or facilities for meetings which are in direct support of any Sea Grant Program or project and may, if approved by the Secretary, be applied to the purchase, rental, construction, preservation, or repair of non-self-propelled habitats, buoys, platforms, and other similar devices or structures, or to the rental of any research vessel which is used in direct support of activities under any Sea Grant Program or project.”

G. Other Submission Requirements

There are no other submission requirements.
Proposals must be submitted through Grants.gov. If an eligible applicant does not have access to the internet, please contact the Agency Contacts listed in Section VII for submission instructions.

V. Application Review Information

A. Evaluation Criteria

1. Importance/relevance and applicability of proposed projects to the program goals (35 percent). This criterion ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, federal, regional, state, or local activities. Specifically, this includes the degree to which the proposal utilizes a co-production of knowledge framework to design and implement the proposed work. This criterion also assesses the degree to which the overall proposal builds or strengthens a community of practice.

2. Technical/scientific merit (30 percent). This criterion assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals, objectives, and a data management plan. This criterion also assesses the degree to which the proposed work will contribute to scientific knowledge related to multi-stressor (ocean/coastal acidification and at least one other stressor) impacts on shellfish

aquaculture production. Additionally, this criterion assesses the responsiveness of the proposed work to the needs of the shellfish aquaculture industry, and it assesses the value of the anticipated outcomes and deliverables.

3. Overall qualifications of applicants (5 percent). This criterion ascertains whether the applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project.

4. Project costs (5 percent). This criterion evaluates the budget to determine if it is realistic and commensurate with the project needs and time frame. This criterion also assesses the degree to which funds are equitably distributed between researchers and growers.

5. Outreach and Education (15 percent). This criterion assesses whether the project provides a focused and effective education and outreach strategy regarding NOAA's mission to protect the Nation's natural resources. This criterion assesses the degree to which the outcomes of the proposed work, specifically the knowledge and products that are responsive to the shellfish aquaculture industry, will be shared beyond the community of practice (i.e. to growers that are not active participants in the proposed work but operate in the greater geographic area).

6. Diversity, Equity, and Inclusion (10 percent). This criterion assesses how well the proposed activity broadens the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc) in science, technology, engineering and mathematics (STEM).

B. Review and Selection Process

Once a full proposal application has been received by NOAA, an initial administrative review is conducted to determine compliance with requirements and completeness of the application. Applications that are missing required elements listed in Section IV. B. 2. Full Proposal Application Requirements or applications coming from ineligible applicants may be rejected without further review.

Applications that pass the administrative review will be reviewed by a technical panel drawn from experts in a range of disciplines that are relevant to the applications. Each proposal will receive at least three written reviews from the panelists assessing its merits with regard to the evaluation criteria.

The proposals, supplemented with information from the Abbreviated Environmental Compliance Questionnaire, will also be reviewed by the program manager to assess the

environmental compliance of the proposed actions. The program manager, NEPA staff lead, or grants specialist may contact the applicants to discuss questions about the environmental effects, merit, or administrative correctness of the application, and may delay approval of the application, or impose conditions on the award preventing funding or execution of certain activities, until all questions are satisfactorily answered.

C. Selection Factors

The Selecting Official shall award in the rank order unless the proposal is justified to be selected out of rank order based on one or more of the following factors:
1. Availability of funding.
2. Balance/distribution of funds:
A. Geographically
B. By type of institution
C. By type of partners
D. By research priority
E. By project types
3. Duplication of other projects funded or considered for funding by NOAA/federal agencies.
4. Program priorities and policy factors.
5. Applicant’s prior award performance.
6. Partnerships with/participation of targeted groups.
7. Adequacy of information necessary for NOAA staff to make a NEPA determination and draft necessary documentation before recommendations for funding are made to the Grants Officer.

D. Anticipated Announcement and Award Dates

Proposals will be reviewed in the spring of 2021, and applicants will be notified no later than June 2021. Subject to the availability of funds, awards are expected to start September 1, 2021.

VI. Award Administration Information

A. Award Notices

Successful applicants will receive notification when the application has been recommended for funding to the NOAA Grants Management Division. This notification is not an authorization to begin performance of the project. Official notification of funding, signed by the NOAA grants officer, is the authorizing document that allows the project to

begin. Notification will be issued to the authorizing official and the PI of the project either electronically or in hard copy. Unsuccessful applicants will be notified that their proposal was not selected. Anonymous copies of reviews and summaries of review panel deliberations, if any, will be made available to all applicants, regardless of whether they were selected to be funded.

B. Administrative and National Policy Requirements

1. Department of Commerce Pre-Award Notification Requirements For Grants And Cooperative Agreements - The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register Notice of December 30, 2014 (79 FR 78390) are applicable to this solicitation and may be accessed online at https://www.gpo.gov/fdsys/pkg/FR-2014-12-30/pdf/2014-30297.pdf.

2. Uniform Administrative Requirements, Cost Principles, and Audit Requirements - Through 2 C.F.R. § 1327.101, the Department of Commerce adopted Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards at 2 C.F.R. Part 200, which apply to awards in this program. Refer to http://go.usa.gov/SBYh and http://go.usa.gov/SBg4.

3. Department of Commerce Terms and Conditions - Successful applicants who accept a NOAA award under this solicitation will be bound by Department of Commerce Financial Assistance Standard Terms and Conditions. This document will be provided in the award package in NOAA's Grants Online system at https://grantsonline.rdc.noaa.gov/flows/home/Login/LoginController.jpf and is also available at http://www.ago.noaa.gov/grants/external_links.html , as well as https://osec.doc.gov/oam/grants_management/policy/documents/Department%20of%20Commerce%20Standard%20Terms%20Conditions%2030%20April%202019.pdf

4. Limitation of Liability - Funding for programs listed in this notice is contingent upon the availability of appropriations. Applicants are hereby given notice that funds may not have been appropriated yet for the programs listed in this notice. In no event will NOAA or the Department of Commerce be responsible for proposal preparation costs. Publication of this announcement does not oblige NOAA to award any specific project or to obligate any available funds.

5. Unpaid or Delinquent Tax Liability - In accordance with Section 523 of Division B and Sections 744 and 745 of Division E of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235) or a future public law, an authorized

representative of the selected applicant(s) will be required to provide certain pre-award representations regarding federal felony and federal criminal tax convictions, unpaid federal tax assessments, and delinquent federal tax returns. The form must be completed and submitted with grant applications for: (a) all for-profit and non-profit organization applicants (Part I, and if required, Part II); and (b) all non-federal entity applicants anticipating receipt of $5 million or more in the current federal fiscal year appropriated funding (Part II only). The form can be found at https://www.osec.doc.gov/oam/grants_management/policy/documents/FAM%202015-01.pdf.

6. National Environmental Policy Act (NEPA) - NOAA must analyze the potential environmental impacts, as required by the National Environmental Policy Act (NEPA), for applicant projects or proposals which are seeking NOAA federal funding opportunities. Detailed information on NOAA compliance with NEPA can be found at the following NOAA NEPA website: http://www.nepa.noaa.gov/, including our NOAA Administrative Order 216-6A for NEPA, https://www.noaa.gov/sites/default/files/atoms/files/NAO_216-6A.pdf, and the Council on Environmental Quality implementation regulations, http://energy.gov/sites/prod/files/NEPA-40CFR1500_1508.pdf. Consequently, as part of an applicant's package, and under their description of their program activities, applicants are required to provide detailed information on the activities to be conducted, locations, sites, species and habitat to be affected, possible construction activities, and any environmental concerns that may exist (e.g., the use and disposal of hazardous or toxic chemicals, introduction of non- indigenous species, impacts to endangered and threatened species, aquaculture projects, and impacts to coral reef systems). In addition to providing specific information that will serve as the basis for any required impact analyses, applicants may also be requested to assist NOAA in drafting an environmental assessment, if NOAA determines an assessment is required. Applicants will also be required to cooperate with NOAA in identifying feasible measures to reduce or avoid any identified adverse environmental impacts of their proposal. Failure to do so shall be grounds for not selecting an application. In some cases if additional information is required after an application is selected, funds can be withheld by the Grants Officer under a special award condition requiring the recipient to submit additional environmental compliance information sufficient to enable NOAA to make an assessment on any impacts that a project may have on the environment.

7. Review of Risk - After applications are proposed for funding by the Selecting Official, the Grants Office will perform administrative reviews, including an assessment of risk posed by the applicant under 2 C.F.R. 200.205. These may include assessments of the financial stability of an applicant and the quality of the applicant’s management systems, history of performance, and the applicant’s ability to effectively implement statutory, regulatory, or

other requirements imposed on non-federal entities. Special conditions that address any risks determined to exist may be applied. Applicants may submit comments to the Federal Awardee Performance and Integrity Information System (FAPIIS) about any information included in the system about their organization for consideration by the awarding agency.

8. Data Sharing Plan - 1. Environmental data and information collected or created under NOAA grants or cooperative agreements must be made discoverable by and accessible to the general public, in a timely fashion (typically within two years), free of charge or at no more than the cost of reproduction, unless an exemption is granted by the NOAA Program. Data should be available in at least one machine-readable format, preferably a widely-used or open-standard format, and should also be accompanied by machine- readable documentation (metadata), preferably based on widely used or international standards. 2. Proposals submitted in response to this Announcement must include a Data Management Plan of up to two pages describing how these requirements will be satisfied. The Data Management Plan should be aligned with the Data Management Guidance provided by NOAA in the Announcement. The contents of the Data Management Plan (or absence thereof), and past performance regarding such plans, will be considered as part of proposal review. A typical plan should include descriptions of the types of environmental data and information expected to be created during the course of the project; the tentative date by which data will be shared; the standards to be used for data/metadata format and content; methods for providing data access; approximate total volume of data to be collected; and prior experience in making such data accessible. The costs of data preparation, accessibility, or archiving may be included in the proposal budget unless otherwise stated in the Guidance. Accepted submission of data to the NOAA National Centers for Environmental Information (NCEI) is one way to satisfy data sharing requirements; however, NCEI is not obligated to accept all submissions and may charge a fee, particularly for large or unusual datasets. 3. NOAA may, at its own discretion, make publicly visible the Data Management Plan from funded proposals, or use information from the Data Management Plan to produce a formal metadata record and include that metadata in a Catalog to indicate the pending availability of new data. 4. Proposal submitters are hereby advised that the final pre-publication manuscripts of scholarly articles produced entirely or primarily with NOAA funding will be required to be submitted to NOAA Institutional Repository after acceptance, and no later than upon publication. Such manuscripts shall be made publicly available by NOAA one year after publication by the journal.

9. Indirect Cost Rate - If an applicant has not previously established an indirect cost rate with a federal agency they may choose to negotiate a rate with the Department of Commerce or use the de minimis indirect cost rate of 10% of Modified Total Direct Cost (MTDC) (as allowable under 2 C.F.R. §200.414). The negotiation and approval of a rate is subject to the

procedures required by NOAA and the Department of Commerce Standard Terms and Conditions. Do not include participant support costs when determining the indirect cost base. Additionally, applicants should be aware that most indirect cost rate agreements require that participant support costs be excluded from the Modified Total Direct Cost base when calculating indirect costs. Applicants should reference their official agreements. The NOAA contact for indirect or facilities and administrative costs is: Lamar Revis, Grants Officer, NOAA Grants Management Division, 1325 East West Highway, 9th Floor, Silver Spring, MD 20910, or lamar.revis@noaa.gov.

10. Minority Serving Institutions - The Department of Commerce National Oceanic and Atmospheric Administration (DOC NOAA) is strongly committed to increasing the participation of Minority Serving Institutions (MSIs), i.e., Historically Black Colleges and Universities, Hispanic-serving institutions, Tribal colleges and universities, Alaskan Native and Native Hawaiian institutions, and institutions that work in underserved communities.

11. Freedom Of Information Act (FOIA) - In the event that an application contains information or data that you do not want disclosed prior to award for purposes other than the evaluation of the application, mark each page containing such information or data with the words "Privileged, Confidential, Commercial, or Financial Information - Limited Use" at the top of the page to assist NOAA in making disclosure determinations. DOC regulations implementing the Freedom of Information Act (FOIA), 5 U.S.C 552, are found at 15 C.F.R. Part 4, which sets forth rules for DOC to make requested materials, information, and records publicly available under FOIA. The contents of funded applications may be subject to requests for release under the FOIA. Based on the information provided by the applicant, the confidentiality of the content of funded applications will be maintained to the maximum extent permitted by law.

12. NOAA Sexual Assault and Sexual Harassment Prevention and Response Policy - If NOAA-operated, leased, or owned facilities are involved in any awards funded under this announcement, such awards are subject to the NOAA Sexual Assault and Sexual Harassment Prevention and Response Policy Applicable to Financial Assistance Awards Involving NOAA-Operated Facilities (May 2018) found at: https://www.noaa.gov/sites/default/files/atoms/files/NOAA%20Sexual%20Assault%20and%20Sexual%20Harassment%20Prevention%20and%20Response%20Policy%20Applicable%20to%20Financial%20Assistance%20Awards%20Involving%20NOAA-Operated%20Facilities%20%28May%202018%29%20%281%29.pdf

C. Reporting

The Federal Funding Accountability and Transparency Act (31 U.S.C. 6101 note)

includes a requirement for awardees of applicable federal grants to report information about first-tier subawards and executive compensation under federal assistance awards. All awardees of applicable grants and cooperative agreements are required to report to the Federal Sub-award Reporting System (FSRS) available at https://www.fsrs.gov/ on all sub-awards over $25,000. Refer to 2 CFR Parts 170.

VII. Agency Contacts

The National Sea Grant Office contact information is:
Attn: Rebecca Certner, Competitions Manager
oar.hq.sg.aquaculture@noaa.gov

The Ocean Acidification Program contact information is:
Attn: Erica Ombres, Federal Program Officer
Erica.H.Ombres@noaa.gov

VIII. Other Information

Potential applicants are encouraged to check Sea Grant's national website at https://seagrant.noaa.gov/Funding for information about a webinar and FAQs related to this announcement.

Recipients are required to use the National Sea Grant Planning Implementation and Evaluation Reporting (PIER) project database to communicate with the National Sea Grant Office on activities relating to this award. This includes tracking progress and impacts, in addition to performance metrics.

Once the applicants have been selected, Programs will need to provide the information requested in the Sea Grant 90-2 into the PIER project database. Once the project is approved and funded, that information will be publicly available and searchable on the National Sea Grant College Program public website (http://seagrant.noaa.gov).

The grant application and final report of all funded grants are public documents, except for privileged information or material that is personal, proprietary or otherwise exempt from disclosure under law. Appropriate labeling in the application will aid identification of what may be specifically exempt. The applicant acknowledges and understands that information and data contained in applications for financial assistance, as well as information and data contained in financial, performance and other reports submitted by applicants, may be used

by the Department of Commerce in conducting reviews and evaluations of its financial assistance programs. For this purpose, applicant information and data may be accessed, reviewed and evaluated by Department of Commerce employees, other federal employees, and also by federal agents and contractors, and/or by non-federal personnel, all of whom enter into appropriate conflict of interest and confidentiality agreements covering the use of such information. As may be provided in the terms and conditions of a specific financial assistance award, applicants are expected to support program reviews and evaluations by submitting required financial and performance information and data in an accurate and timely manner, and by cooperating with Department of Commerce and external program evaluators. In accordance with 2 C.F.R. § 200.303(e), applicants are reminded that they must take reasonable measures to safeguard protected personally identifiable information and other confidential or sensitive personal or business information created or obtained in connection with a Department of Commerce financial assistance award.

In addition, Department of Commerce regulations implementing the Freedom of Information Act (FOIA), 5 U.S.C. Sec. 552, are found at 15 C.F.R. Part 4, Public Information. These regulations set forth rules for the Department regarding making requested materials, information, and records publicly available under the FOIA. Applications submitted in response to this Notice of Funding Opportunity may be subject to requests for release under the Act. In the event that an application contains information or data that the applicant deems to be confidential commercial information that should be exempt from disclosure under FOIA, that information should be identified, bracketed, and marked as Privileged, Confidential, Commercial or Financial Information. In accordance with 15 CFR § 4.9, the Department of Commerce will protect from disclosure confidential business information contained in financial assistance applications and other documentation provided by applicants to the extent permitted by law.

There is no guarantee that funds will be available to make awards for this federal funding opportunity or that any proposal will be selected for funding. If an applicant incurs any costs prior to receiving an award agreement signed by an authorized NOAA official, they do so at their own risk of these costs not being included in a subsequent award. NOAA or the Department of Commerce are not responsible for any direct costs of proposal preparation. Recipients and sub-recipients are subject to all federal laws and agency policies, regulations, and procedures applicable to federal financial assistance awards.