

Harmful Algal Bloom Control Technologies Incubator

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NOTICE OF FUNDING OPPORTUNITY

EXECUTIVE SUMMARY

Federal Agency Name(s): National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce

Funding Opportunity Title: Harmful Algal Bloom Control Technologies Incubator

Announcement Type: Initial

Funding Opportunity Number: NOAA-NOS-NCCOS-2022-2007023

Catalog of Federal Domestic Assistance (CFDA) Number: 11.478, Center for Sponsored Coastal Ocean Research - Coastal Ocean Program

Dates: To be considered for this funding opportunity, the required Letters of Intent (LOI) must be submitted by e-mail to nccos.grant.awards@noaa.gov and received no later than 11:59 p.m. Eastern Time on October 15, 2021. Applicants will receive an email verification of receipt.

Responses to LOIs should be expected by approximately (two weeks after LOI due date). Full applications must be received and validated by Grants.gov by 11:59 p.m. Eastern Time on January 27, 2022. Electronic submissions received after the deadline will not be considered.

Investigators are advised to submit full applications well in advance of the deadline as a precaution against unanticipated delays. Applicants must register with Grants.gov before submitting application materials. When developing your submission timeline, keep in mind the following information regarding application submission on Grants.gov:

1. Grants.gov requires applicants to complete a free annual registration process in the electronic System for Award Management (SAM), which may take between three and five business days or as long as several weeks to process as described in Section IV.G. of this Announcement.

2. If you submit a full application via Grants.gov, you will receive a series of email notifications for up to two business days before learning via validation or rejection whether NOAA has received your application.

If use of Grants.gov is not feasible, contact the NCCOS Grants Administrator (see section VII for contact information) as soon as possible and no later than a week before the due date to assess whether alternative arrangements can be made.

Funding Opportunity Description: The purpose of this document is to advise the public that NOAA/NOS/National Centers for Coastal Ocean Science (NCCOS)/Competitive Research Program (CRP) [formerly Center for Sponsored Coastal Ocean Research (CSCOR)/Coastal Ocean Program (COP)] is soliciting proposals from the Cooperative Ecosystems Studies Units (CESU) to implement a 5-year Harmful Algal Bloom (HAB) Control Technologies Incubator (HCTI) under the auspices of the NCCOS/CRP Prevention, Control and Mitigation of HAB Program (PCMHAB). This funding opportunity will provide support for one award to develop and administer a national program that accelerates the development and application of HAB control approaches. To accomplish this, the main objective of the HCTI will be to fund extramural proof of concept, innovative HAB control technology projects to assess their feasibility. Promising technologies will then be encouraged to apply to relevant future PCMHAB competitive funding announcements independent from the HCTI. In addition, the other objective of the HCTI will be to provide guidance to end users and stakeholders on navigating the relevant licensing and permitting processes (e.g., National Environmental Protection Act and Federal Insecticide, Fungicide, and Rodenticide Act requirements) relevant to the applicability of proven control methods during responses to ongoing HAB events. The proposals must address how the HCTI will accomplish these two objectives.

This funding opportunity is intended to support the administration of the HCTI and is not intended to directly support individual research projects or short term activities on specific local coastal HAB issues. Funding is contingent upon the availability of Fiscal Year 2022 Federal appropriations. If funds become available for this program, one project for a HCTI will be funded for approximately \$1.5M/year for 5 years, not to exceed \$7.5M over that period. If successful, the selected project may receive an additional \$7.5M for a second and final 5 year period of performance. It is anticipated that projects funded under this announcement will have a September 1, 2022 start date.

An informational webinar covering HCTI and this solicitation, will be offered by a NCCOS/CRP Program Manager within approximately three weeks from the publication date of the NOFO. Information on the date/time can be found at <https://coastalscience.noaa.gov/research/stressor-impacts-mitigation/pcmhab/>.

NOAA, NOS, and NCCOS/CRP encourages applicants and awardees to support the principles of diversity and inclusion when writing their proposals and performing their work. Diversity is defined as a collection of individual attributes that together help organizations achieve objectives. Inclusion is defined as a culture that connects each employee to the organization. Promoting diversity and inclusion improves creativity, productivity, and the vitality of the HAB research community in which NCCOS/CRP engages.

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

The National Oceanic and Atmospheric Administration (NOAA) is soliciting competitive grant proposals from eligible applicants to support the management objectives of NOAA that fit within the intent of the National Cooperative Ecosystems Studies Unit (CESU) Network Program (<http://www.cesu.psu.edu/default.htm>): to provide research, technical assistance, and education to federal land management, environmental, and research agencies and their partners in biological, physical, social, cultural, and engineering disciplines needed to address natural and cultural resource management issues at multiple scales and in an ecosystem context.

Harmful algal blooms (HABs) are a ubiquitous problem that affect coastal and Great Lakes waters around the United States. Science has made significant advancements towards our understanding of the dynamics that lead to the formation and spread of HABs; however, effective means to control, and mitigate blooms at multiple geographical scales, remains elusive. The 1998 Harmful Algal Bloom and Hypoxia Research Control Act (HABHRCA) and the Harmful Algal Bloom and Hypoxia Amendments Act of 2004 (2004 HABHRCA Reauthorization) authorized the establishment of the Prevention, Control, and Mitigation of HABs (PCMHAB) program at the NOAA National Ocean Service's (NOS) National Centers for Coastal Ocean Science (NCCOS) Competitive Research Program (CRP) which continues to foster the development, demonstration, and transition of existing and promising prevention, control, and mitigation technologies and strategies to end-users. While PCMHAB has advanced several technologies, progress in this arena has not kept pace with an expanding societal desire to have access to a variety of safe and effective bloom control options. This is due to a number of factors including a need to stimulate greater awareness and new thinking within the scientific community, the need to complete studies of the social, economic and environmental costs and benefits of each technology, and challenges in navigating multi-level permitting and compliance processes.

As entities have worked to assess control approaches applicable to control HABs in their region, there has been increasing recognition of the need to incorporate environmental compliance, risk assessments, and other permitting in the decision making process. NCCOS/CRP developed a preliminary Programmatic Environmental Assessment (PEA) to provide an initial review of known HAB control techniques and their potential environmental impacts. Many HAB control technologies, such as application of hydrogen peroxide, have been found effective in controlling a HAB, but their use has been limited

over concerns of significant environmental side-effects. Other techniques, such as clay flocculation, have also raised concerns over public perceptions, despite their wide-spread use internationally. Lack of a comprehensive review of these issues has limited the development and implementation of HAB Control technologies and represents a significant need for the eventual use of HAB Control.

With this announcement, NCCOS/CRP is seeking proposals to develop and implement a national level program that will complement PCMHAB Program in the development and implementation of scalable, environmentally acceptable, cost-effective HAB control strategies. We seek to create a HAB Control Technologies Incubator (HCTI) dedicated to accelerating the initial assessment of innovative control strategies and technologies for feasibility. As appropriate, the HCTI may also provide guidance to relevant end users on the development of their HAB control strategies. This funding opportunity is not requesting proposals for individual research projects or short term activities focused on specific local coastal HAB issues.

The HCTI assessment process will help accelerate the research and development of novel control sub-projects by determining concept feasibility, environmental acceptability, and scalability. Novel techniques that meet these criteria will then be considered for field-testing under the traditional PCMHAB competitive program. Projects that are proven successful in the field testing phase will then be added to the HCTI's inventory of proven strategies to facilitate implementation by helping determine regulatory requirements and promoting adoption by resource managers. The HCTI will also provide advice and guidance to investigators and organizations trying to facilitate the implementation of proven methods, especially with regard to environmental compliance and their suitability to specific HAB event responses.

B. Program Priorities

Applications must address how the proposal will implement a framework to fulfill the objectives of the HCTI. Research and development conducted under the program should target HABs that cause adverse animal and public health, social and economic (e.g., recreation, fisheries, aquaculture), and environmental impacts in marine waters (i.e., beaches, bays, estuaries, coastal, oceanic etc.) and the Great Lakes. Although CRP is not prescribing a particular framework to implement the HCTI, it is expected that the funded project will achieve, but not be limited to, the following goal:

- * Increase the number of HAB control strategies and technologies available that eliminate or reduce the levels of harmful algae and their toxins through biological, chemical, or physical means by:

- Speeding their development and assessment and
- Clarifying the requirements of the licensing and permitting processes regulating their application.

To accomplish the goals stated above, the HCTI must conduct, but is not limited to, the following activities:

- * Establishing a HCTI framework that is reasonable and commensurate with the goals and objectives of the HCTI and maximizes the amount of funds that will be available for the solicitation of the sub-projects.
- * Soliciting potential innovative sub-projects from the public and private research communities and, where appropriate, promote private-public partnerships to develop control methodologies.
- * Having a rigorous evaluation and advice process to consider submissions for awards to test new HAB control sub-projects and provide financial support for selected sub-projects through a feasibility assessment process based on both merit and performance. The types of projects could address questions such as will it control the HAB, is it safe, is it cost effective, and is it scalable?
- * Building on the NCCOS/CRP HAB Control PEA. The project should establish a clearinghouse of best practices and regulatory requirements to facilitate/accelerate development and testing of innovative HAB control methods, as well as the application of these methods by resource management agencies during bloom events when appropriate.
- * Assembling and seeking input from a diverse external Executive Board composed of key stakeholders and end users (e.g., state resource management agencies, the biotechnology private sector, as well as the HAB research community) that represent the regional differences of HAB control needs. The advisory board will guide the overall implementation of the HCTI, give advice on the project selection process and execute other duties as established by its charter when instituted.

C. Program Authority

The mission of the National Oceanic and Atmospheric Administration (NOAA) is to understand and predict changes in the Earth's environment and conserve and manage coastal and marine resources to meet our Nation's economic, social, and environmental needs.

NOAA's authorities to participate in and conduct activities in this research area include a number of statutes.

33 U.S.C. § 883(e) Agreements for surveys and investigations; contribution of costs incurred by National Oceanic and Atmospheric Administration;

33 U.S.C. §§ 4001-4009, The Harmful Algal Bloom and Hypoxia Research and Control Act of 1998 (HABHRCA), as amended;

Public Law 102-567, § 201(c), Coastal Ocean Program.

II. Award Information

A. Funding Availability

Depending upon the availability of FY 2022 appropriations, NOAA anticipates that approximately \$1.5M may be available to fund the first year of a new 5 year project under this competition. NOAA will not accept any proposals submitted with total budgets that are greater than \$7.5M for all 5 years. An additional \$7.5M may be available for a one-time five year, non-competitive renewal of the selected project.

B. Project/Award Period

Full applications must cover an award period of five years. The project selected for an initial five year award may be invited to submit a new, non-competitive renewal application for an additional five year award that builds upon the initial five-year project. Awards may be funded incrementally, generally on an annual basis, but once awarded, those awards will not compete for funding in subsequent years. Once approved, a full application is not required for the continuation in the second through fifth years. While applicants are not required to divide Federal assistance project activities into annual increments based on appropriations law, this approach may be constructive given the possibility that funding may not be available in subsequent years.

Funding for each year's activity is contingent upon the availability of appropriations, satisfactory performance, and is at the sole discretion of the agency.

During the implementation phase of project activities funded under this Announcement, regardless of the funding mechanism used, NCCOS/CRP Program Managers will analyze financial statements and progress reports for each continuing award, and will have dialogue with the Principal Investigators (PIs) and Authorized Representatives of the recipient

institutions to discuss research progress and expected timelines for the remaining award period. If NOAA experiences budget fluctuations in future fiscal years, the amount of funding provided in any given fiscal year will be determined on a project-specific basis by the remaining tasks to be completed, the overall pace of performance and the length of time remaining on the award, and/or across the board reductions or increases based on the overall funds available.

Regardless of the budget for any given fiscal year, NCCOS/CRP Program Managers will consider the length of time remaining for the project, the amount of funds available, the tasks to be completed in the upcoming fiscal year, the pace of research, and any delayed progress relative to that originally proposed, before determining the funding amount in any given fiscal year.

Invitations to submit a non-competitive renewal application are at the sole discretion of CRP and all decisions will be considered final. CRP will use the findings from (1) a quality and relevancy review of the initial five-year project conducted by an expert panel of researchers and resource managers and (2) an internal review of programmatic, financial, and administrative performance of the initial five-year project to determine whether an invitation to submit a subsequent five-year non-competitive renewal application is warranted. This assessment will utilize the project progress and financial reports of the first four years of the initial award period as a basis to determine if the project has accomplished the overarching goals set by the HCTI Program, as well the respective goals and objectives identified in the proposal selected during the competition.

An invitation to submit a non-competitive renewal application does not obligate CRP to select the application for funding. The non-competitive renewal application will be subject to independent peer panel review (see Section V.A). The initial five-year project reviews described above will be made available to the independent peer panel reviewers and will be considered in their merit review of the renewal application. Funding decisions will be based on the outcome of that review process. If the non-competitive renewal application is selected for funding, a new award will be issued.

C. Type of Funding Instrument

Under this solicitation, NCCOS/CRP will fund the projects under the 2022 HCTI Program as a cooperative agreement. A cooperative agreement is a financial assistance instrument that requires substantial involvement by the awarding agency. Substantial involvement means that, after award, NOAA scientific or program staff will assist, guide, coordinate or participate in project activities in a partnership role; it is not to assume direction, prime responsibility, or a dominant role in the activities. The dominant role and

prime responsibility resides with the awardee for the project as a whole, although specific tasks and activities may be shared among the awardees and NOAA. Examples of substantial NOAA involvement may include non-compensated collaboration in research or approval of key stages in the project before subsequent steps are undertaken. The exact amount of funds, the scope of work, and terms and conditions of a successful award will be determined in pre-award negotiations between the selected recipient and NOAA program representatives.

While NOAA determines the substantial involvement in projects, applicants may propose specific NOAA participation or substantial involvement suitable for their projects. Further, the work funded in the cooperative agreement is conducted to support the mission of NOAA and be consistent with the intent of the CESU and NOAA HAB Programs (see I.A. of this document). Please write the cooperative agreement application with these items in mind.

III. Eligibility Information

A. Eligible Applicants

Eligible applicants are non-federal partner institutions of the NOAA approved Cooperative Ecosystem Studies Unit (CESU), <http://www.cesu.psu.edu/>. Of the 17 CESUs across the nation, NOAA is a member of 10: North and West Alaska, California, Hawaii-Pacific Islands, South Florida-Caribbean, Gulf Coast, Piedmont-South Atlantic Coast, Chesapeake Watershed, North Atlantic Coast, Pacific Northwest, and Great Plains.

Lead PIs must be employees of an eligible NOAA approved CESU listed above; applications must be submitted through that entity; and should comply with their institutional requirements for application submission. Subaward institutions do not have to be members of an eligible NOAA approved CESU, but they must adhere to the relevant CESU guidelines and use the established CESU overhead rate.

B. Cost Sharing or Matching Requirement

No cost sharing or matching is required under this program.

C. Other Criteria that Affect Eligibility

Applications that do not submit an LOI are not eligible and will be rejected. Each application must substantially comply with the 15 elements listed under Section IV.2.A Content and Form of Application: Required Elements (1) - (15), or it will be returned to sender without further consideration. A checklist with the required and requested application elements can be found in Section VIII.

IV. Application and Submission Information

A. Address to Request Application Package

Proposal materials are available at <http://www.grants.gov> as part of the electronic proposal package. Please contact the NCCOS Grants Administrator (see section VII) should you have an issue accessing the materials.

B. Content and Form of Application

(a) Letter of Intent (LOI)

LOIs are required. Any full proposal submitted without a prior timely LOI submission will not be considered. The purpose of the LOI process is to provide information to potential applicants on the relevance of their proposed project and the likelihood of it being competitive in advance of preparing a full application. Full applications will be encouraged only for LOIs deemed relevant; however, the final decision to submit a full proposal is made by the applicant. The LOI should provide a concise description of the proposed work and its relevance to the HCTI Program. The LOI should be no more than five pages (front only) in length, single spaced in 12-point font with 1-inch margins and should include in order the components listed below. If all these components are not included, the LOI will not be considered.

1. Title Page (one page)

a. Title

b. CESU(s) Name(s)

c. Lead for Development of Statement of Work (SOW) (primary contact for this Initiative)

i) Title / Position

ii) Affiliation

iii) Telephone number

iv) Email address

d. Additional SOW Team Members (any other CESU staff or partner that will

participate in the development of the full application) Name, affiliation, telephone, email address, nature of contribution (i.e, expertise related to harmful algal blooms)

2. Narrative (not to exceed 4 pages)

The emphasis of the narrative of the LOI should be to demonstrate that applicants have the capability to implement the HCTI as a national level program that will help expedite the development and implementation of scalable, environmentally acceptable, cost-effective control strategies to address the HAB problem. The HCTI is to be dedicated to fast track the initial assessment of innovative control strategies and technologies for feasibility, and facilitating the deployment of strategies proven appropriate and effective. This capability must be demonstrated by a clear, but concise, description of CESU assets with the expertise (internal or collaborative) to implement an entity that can solicit, evaluate and provide financial support to projects related to methodologies to control HABs. In particular, we seek the expertise to evaluate the feasibility and scalability of the control methodologies and assess the social and economic impacts (costs v. benefits) of the use of such technologies to manage and protect coastal resources from the impacts of HABs. Please provide reference web links for the key assets listed (i.e., CVs, related project pages, etc.).

LOIs should be emailed to nccos.grant.awards@noaa.gov by the deadline stated above. Questions on the LOI or other aspects of this funding opportunity should be sent to the NCCOS/CRP Program Manager (see section VII for contact information).

NOAA Program Managers will review each LOI to determine whether it is responsive to the Program's goals, as advertised in this Announcement. Letters or emails to encourage or discourage a full application are scheduled to be sent out two weeks after the LOI due date. Late LOIs will not be considered and any associated full applications will not be considered.

(b) Example Application

A sample application package and other guidance can be found under “Information for Applicants” located on the NCCOS website at:

<https://coastalscience.noaa.gov/about/funding-opportunities/application-forms/>.

(c) Collaborative Proposals

If more than one institution is collaborating in a project awarded funds, the lead institution will be the only institution to directly receive funds from NOAA. Only one full proposal per project must be submitted via Grants.gov. Collaborating institutions expected to receive

funds must be budgeted as subawards or contracts in the submitted proposal and provide the lead institution with their documents for submission by the lead. Unfunded collaborators may also participate.

(d) Required Elements

Each application must substantially comply with the following 15 elements to be forwarded for merit review. The Summary, Title page, Abstract, Project Description, References, Biographical Sketch, and Budget Narrative must be single spaced in 12-point font with 1-inch margins. The Collaborators List must be an Excel spreadsheet. The 15 elements are as follows:

(1) Standard Form 424. The applicant must submit the Standard Form, SF-424, "Application for Federal Assistance," to indicate the total amount of funding proposed for the whole project period. This form is to be the cover page for the original application and is the first required form in the grants.gov application package.

(2) Summary Title Page. One-page maximum. The Summary Title Page identifies the project's title (starting with the acronym HCI), the Principal Investigator's (PI) name, affiliation, complete address, phone and email information, and the name and affiliation of any co-PIs. The requested funding amounts for each fiscal year with and without ship funding should be included on the Summary Title Page.

(3) One-page Abstract/Project Summary. The summary (abstract) should appear on a separate single page, headed with the proposal title, institution(s), investigator(s), total proposed cost (with and without ship funds), and budget period. The project summary should include an introduction of the problem, rationale, approach to develop and implement the HCTI framework, and a brief summary of work to be completed. It should be written in the third person. The summary is used to help compare proposals quickly and allows the respondents to summarize their key points in their own words. Project summaries of applications that receive funding may be posted on program-related websites.

(4) Project Description. Each project must be completely and accurately described. The main body of the proposal should be a clear statement of the work to be undertaken and should include: specific goals and objectives; performance measures for the period of the proposed work and the expected results or outcomes; information that demonstrates the need for the project; descriptions of methodologies and time-lines for all phases of work; and, if applicable, the relationship to other ongoing work, or work planned, anticipated, or underway through Federal Assistance or other means. Multi-year applications must include

such information for each year of the proposed activity.

The description of the proposed project must not exceed 23 pages and include five narrative sections: the Project Goals, a Business Plan, a Research Plan, a Data Management Plan and a Statement of Diversity and Inclusion. The project description shall comprise of up to 20 pages for the narrative of the Project Goals, the Business Plan, and the Research Plan; two (2) pages for the Data Management Plan; and one (1) page for the Statement of Diversity and Inclusion. These five sections must include the information as described below.

The Project Description narrative should be thorough and explicitly address its relevance to the HCTI Program objectives and priorities by:

- Discussing how the proposed project lends value to the HCTI Program;
- Identifying the function of each Applicant. (In case of more than one Applicant, the Lead Applicant will be responsible for communicating with the NCCOS/CRP Program Manager on all pertinent verbal or written information.);
- Providing a detailed description of the activities that are to be accomplished during each budget period of the project. Project milestones and the timelines (e.g. the number of months) necessary to meet them should be discussed.

(a) Project Goals.

The Project Goals section should clearly describe the mission and vision of the HCTI, and what the project expects to accomplish during the award period.

(b) Business Plan.

The Business Plan section should be well-developed and include details regarding HCTI governance structure, fiscal and human resource management, as well as strategic planning and accountability. It must describe clearly the organization of the HCTI and how it will operate. It must describe the composition of the governance structure (i.e., staff, officers, Executive Board, etc.), as well as their responsibilities in running the HCTI. The membership of the Executive Board must represent the national level scope of the HCTI. The Business Plan must also describe how the HCTI will support communication and collaborations with NOAA and all relevant end users and stakeholders to achieve HCTI Program objectives.

(c) Research Plan.

The Research Plan should describe in detail the procedures for how the HCTI will solicit, choose and support sub-projects as a national level program. The Research Plan should also include proposed measures of progress to be used by the HCTI to gauge, quantify, and/or evaluate progress on both individual sub-projects and its overall performance. After the award is made, NCCOS/CRP will work with the HCTI to finalize a set of procedures and performance measures that are acceptable to the HCTI and NCCOS/CRP. After the HCTI award has been established, the HCTI must produce subsequent annual research plans that provide specific information about the research projects that will be accomplished during the out years of the award. The plans will be developed after consultations with the NCCOS/CRP Program Manager. These plans must state the goals and objectives of each sub-project, along with a description of the research that the HCTI expects to accomplish and a detailed budget for these sub-projects. HCTI funding for the sub-projects described in these plans will be released upon NOAA's approval of the outyear annual research plans.

(d) Data Management Plan.

Proposals must provide a detailed Data Management Plan that describes how metadata and data collected as part of the HAB control sub-projects to be funded by HCTI will be disseminated to the broader community, and plans for longer term archiving of these data. PIs leading HAB control sub-projects that propose to collaborate with data centers or networks, except the National Center for Environmental Information, are advised to obtain letters of commitment that affirm the collaboration. Where possible, all HAB control sub-project PIs are strongly encouraged to use existing data centers and data portals to archive and disseminate their data. Costs associated with use of data centers, or data archiving, should be included in their application budgets. See the section on the NOAA Data Reporting requirements in section VI.C below.

(e) Statement of Diversity and Inclusion.

CRP recognizes that it has a particular and unique opportunity to support NOAA's commitment to diversity and inclusion by taking an intentional step that encourages program 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. In this section, describe how well the proposed activity broadens the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.). Examples could include, but are not limited to, full participation of women, persons with disabilities, and underrepresented groups in science, technology,

engineering, and mathematics (STEM).

(5) References cited.

Reference information is required. Each reference should include the names of all authors in the same sequence they appear in the publications, the article title, the journal or book title, volume number, page numbers, and year of publications. While there is no established page limitation, this section should include bibliographic citations only and should not be used to provide parenthetical information outside of the Project Description.

(6) Milestone chart.

Provide timelines of major tasks covering the duration of the proposed project.

(7) Biographical sketch.

All principal and co-investigators must provide summaries of up to two pages that include the following:

- a. A listing of professional and academic credentials and mailing address;
- b. A list of up to five publications most closely related to the proposed project and five other significant publications.

(8) Current and pending support.

Describe all current and pending Federal financial/funding support for all PIs and co-PIs. Continuing grants must also be included. A current and pending support form is available on the NCCOS web site for your use:

<https://coastalscience.noaa.gov/about/application-forms> Please download and save the form. You should respond to this element if you do not have any current and/or pending support by indicating “not applicable.”

(9) Applicable Permits.

A list of all known applicable permits that will be required to perform the proposed work. You should respond to this requirement element whether or not permits are required.

(10) Accomplishments from Prior Federal Support addressing HAB research.

If any PI or co-PI identified on the project has received Federal funding in the past five years for HAB research, information on the award(s) is required. Each PI and co-PI who has received more than one award (excluding amendments) must report on the award most closely related to the proposal. This section should not exceed two pages (in total, NOT per investigator) in addition to the Project Description.

The following information on accomplishments should be provided:

- a. the award number, amount and period of support;
- b. the title of the project;
- c. a summary of the results of the completed work;
- d. publications resulting from the award;
- e. a brief description of outputs and outcomes; and
- f. as appropriate, a description of the relation of the completed work to the proposed work.

When applicable, this information will be considered by reviewers in the evaluation of overall qualifications of applicants. You should respond to this element even if the applicant has no accomplishments from prior Federal support on HABs by stating “no prior Federal research on HABs.”

(11) Budget narrative.

In order to allow reviewers to fully evaluate the appropriateness of costs, all applications must include a detailed budget narrative to support all proposed budget categories for each fiscal year. Provide a separate budget narrative for each year. Each subaward necessary for implementing the HCTI should be listed as a separate item in the lead’s budget narrative. For additional budget guidance, please visit https://coast.noaa.gov/data/coasthome/funding/_pdf/forms/budget-narrative-guidance-for-NOAA-grants.pdf.

Personnel costs should be broken out by named PI, number of months, and percentage of

time requested per year per PI. Support for each PI should be commensurate with their stated involvement each year in the milestone chart (see Required Elements: (6) Milestone Chart). Any unnamed HCTI personnel (e.g., project manager, HCTI support staff, etc.) should be identified by their job title, and their personnel costs explained similarly to PI personnel costs. The contribution of any personnel to the project goals should be explained. HCTI administrative and support staff must be dedicated to the project 100% in order to be considered an allowable direct cost.

Travel costs should be broken out by number of people traveling, destination and purpose of travel, and projected costs per person (i.e., hotel rate, meals and incidentals, and transportation). Registration fees belong in the “h. Other” category in the SF424A and budget justification.

Travel for Executive Board members that are Federal employees will be funded by NOAA or other federal agencies, not through the cooperative agreement budget.

Equipment costs should describe the equipment to be purchased, and its contribution to the achievement of the project goals.

Any ship time needs must be clearly identified in the proposed budget. The applicant is responsible for requesting ship time through appropriate channels and for meeting all requirements to ensure the availability of requested ship time. If any NOAA personnel will be present during ship operations, vessel safety clearances must be obtained through the NOAA Office of Marine and Aviation Operations (OMAO) in advance of the cruise. Required information and procedures are detailed in a Charter Vessel Acquisition and Safety NOAA Administrative Order which can be accessed via the OMAO website at <https://www.oma.noaa.gov/learn/headquarters/safety-environmental-compliance>.

If more than one institution is collaborating in a project awarded funds, the lead institution will be the only institution to directly receive funds from NOAA. The lead institution is responsible for sending funds to their other subaward institutions. A separate budget narrative is required for each subaward and must be provided to the lead institution for submission. Signed approval from each identified subaward institution is also required. For acquisition contracts, the purpose and cost or price must be fully justified and the contract must fully comply with 2 C.F.R. 200.317-.327.

Applications are permitted to include the costs of project-level data management, including: coordinating, organizing, documenting, formatting, or otherwise preparing datasets for submission to NOAA or non-NOAA data facilities; establishing and maintaining data access

tools and services and related metadata; managing non-digital data that are not required to be made publicly accessible, including laboratory notebooks, preliminary analyses, drafts of scientific papers, plans for future research, peer review reports, communications with colleagues, or physical objects, such as laboratory specimens.

An applicant requesting funds for indirect costs in its proposal budget that has a current Federally approved rate should submit documentation of the indirect cost rate agreement as an attachment to its application submission. An applicant without a Federally approved rate should refer to Section IV.F. of this Announcement regarding options.

(12) CD-511.

Certification Regarding Lobbying. Lead institutions can submit these forms through the grants.gov CD-511 document placeholder without a hard signature because electronic signatures are allowed on documents from the submitting institution.

(13) Standard Form (SF) 424B. Assurances - Non-Construction Programs.

Lead institutions can submit these forms through the grants.gov SF 424B document placeholder without a hard signature because electronic signatures are allowed on documents from the submitting institutions.

(14) Standard Form 424A.

All applicants are required to provide a SF-424A Budget Form that identifies the budget for each fiscal year of the proposal. Place each fiscal year in separate columns in Section B of page one on the SF-424A by filling in the fiscal years 1-5 in Section A Budget Summary - Grant Program Function or Activity column. (Note that this revised SF-424A Section B format is a NOAA requirement that is not reflected in the Instructions for the SF-424A). The budget figures must correspond with the descriptions contained in the Budget Narrative.. If applicable, each subaward should provide a SF-424A listing each year of funding being requested. List total subaward costs under line item 6.h. Other category and contractor costs under line item 6.f. Contractual category on the SF-424A. Signed approval from the institution of each identified subaward and contractor should be provided. Sub-projects to be solicited are not considered subawards.

All ship costs belong in the “other” category and are not subject to indirect costs

(15) List of Collaborators.

Provide one list that includes all (U.S. and Foreign) collaborators, advisors, and advisees for each investigator (PI, Co-PIs, post-docs, and subawardees), complete with corresponding institutions. This list must include the names of each PI and co-PI. Submit only one, combined and alphabetized list per application in an excel spreadsheet using First Name, Last Name and Institution for the column headings. Collaborators are individuals who have participated in a project or publication within the last 48 months with any investigator, including co-authors on publications in the resumes. Collaborators also include those persons with which the investigators may have ongoing collaboration negotiations. Advisees and Advisors do not have a time limit. Advisees are persons with whom the individual investigator has had an association as thesis advisor or postdoctoral sponsor. Advisors include an individual's own graduate and postgraduate advisors. Unfunded participants in the proposed study should also be listed (but not their collaborators). This information is critical for identifying potential conflicts of interests and avoiding bias in the selection of reviewers.

(e) Application Format and Assembly.

Workspace is the standard way for organizations or individuals to apply for Federal grants in Grants.gov. Workspace allows a grant team to simultaneously access and edit different forms within an application. Plus, the forms can be filled out online or offline - your choice.

Grants.gov Workspace also allows applicants and organizations to tailor their application workflow. Please refer to <https://www.grants.gov/web/grants/applicants/workspace-overview.html> to determine which of the three approaches your institution should take when completing a Workspace application. This page also contains resources to aid in setting up the workspace and the application submission process.

If you experience submission problems that may result in your application being late, send an e-mail to support@grants.gov and call the Grants.gov help desk (800-518-4726). The NCCOS/CRP Program Manager for this Announcement will use programmatic discretion in accepting applications due to documented electronic submission problems. NOTE: If more than one submission of an application is performed, the last application submitted before the due date and time will be the official version.

In addition to the 15 required elements, applicants may provide the following:

- a) A list of potential peer reviewers on a page after the Summary Title Page.

b) Letters from unfunded collaborators, verifying their contribution to the project. These letters do not count against the page limit for the Project Description. Letters of support may also be included, but they count against the page limit for the Project Description.

These elements can be uploaded into the Optional Form box under Other Attachments in Grants.gov.

Applications containing known subawards must provide a SF-424A, Budget Narrative, and Current and Pending Support for each subaward. Signed approval from the institution of each subaward and contractor should be provided. We also request submission of the indirect rate agreement for subawards, if applicable. Applicants may provide additional information similar to that requested in this section for an acquisition contract if it may help NOAA assure compliance of the contract with 2 C.F.R. 200.317-.327.

Permits, accomplishments, Biographical sketches and the collaborators lists should be supplied to the lead institution in order for them to be combined within the lead application information. It is the applicant's responsibility to obtain all necessary Federal, state, and local government permits and approvals where necessary for the proposed work to be conducted.

Applicants are expected to design their proposals so that they minimize potential adverse impacts on the environment. If applicable, documentation of requests or approvals of environmental permits should be received by the NCCOS/CRP Program Manager prior to funding. Applications will be reviewed to ensure that they have sufficient environmental documentation to allow program staff to determine whether the proposal is categorically excluded from further National Environmental Policy Act (NEPA) analysis, or whether an Environmental Assessment is necessary in conformance with requirements of NEPA. For those applications needing an Environmental Assessment, affected applicants will be informed after the peer-review stage, and will be requested to assist in the preparation of a draft assessment (prior to award). Failure to apply for and/or obtain Federal, state, and local permits, approvals, letters of agreement, or failure to provide environmental analysis where necessary (e.g., NEPA Environmental Assessment) may delay the award of funds if a project is selected for funding.

Applicants to be recommended for funding will be required to answer relevant questions from the "Environmental Compliance Questionnaire for NOAA Federal Financial Assistance Applicants": <https://www.nepa.noaa.gov/docs/NOAA-Grants-Questionnaire-final.pdf>. The NCCOS/CRP Program Manager will determine which questions are relevant to each specific proposal. Answers must be provided before the application can be submitted for final

funding approval.

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 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 C.F.R. Part 25, which may be accessed at <https://go.usa.gov/xPTZg>.

Applicants and recipients are required to continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency. The Federal awarding agency may not make a Federal award to an applicant until the applicant has complied with all applicable unique entity identifier and SAM requirements and, if an applicant has not fully complied with the requirements by the time the Federal awarding agency is ready to make a Federal award, the Federal awarding agency may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant.

See Section IV.G. of this Announcement for more information.

D. Submission Dates and Times

To be considered for this funding opportunity, the required LOIs must be sent by e-mail to nccos.grant.awards@noaa.gov and must be received no later than 11:59 p.m. Eastern Time on October 15, 2021. Applicants will receive an email verification of receipt.

Full applications must be received and validated by Grants.gov by 11:59 p.m., Eastern Time on January 27, 2022. Full applications should be submitted electronically to Grants.gov and must be received and validated by Grants.gov by the deadline. Applications received after the deadline will be rejected and returned to the sender without further consideration.

Important: All applicants should be aware that adequate time must be factored into applicant schedules for delivery of the application. Applicants are advised that volume on Grants.gov is currently extremely heavy, and if use of Grants.gov is not feasible, contact the NCCOS Grants Administrator (see section VII for contact information) as soon as possible and no later than a week before the due date to assess whether alternative arrangements can be made.

E. Intergovernmental Review

Applications under this program are not subject to Executive Order 12372, "Intergovernmental Review of Federal Programs." It has been determined that this notice is not significant for purposes of Executive Order 12866. Pursuant to 5 U.S.C. 553(a) (2), an opportunity for public notice and comment is not required for this notice relating to grants, benefits and contracts. Because this notice is exempt from the notice and comment provisions of the Administrative Procedure Act, a Regulatory Flexibility Analysis is not required, and none has been prepared. It has been determined that this notice does not contain policies with Federalism implications as that term is defined in Executive Order 13132.

F. Funding Restrictions

NOAA will not consider expenses associated with fees, fund-raising activities, travel for activities not directly related to project implementation, salaries for Federal employees, or profit as allowable costs in the proposed budget. The total costs of a project consist of all allowable costs incurred in accomplishing project activities during the project period. Applicants will not be reimbursed for time expended or direct costs incurred in developing a project or in preparing an application, or in any discussions or negotiations with the agency prior to the award.

NCCOS/CRP, CESU Program, and NOAA's Grants Management Division staff will review budget information for recommended applications to determine if costs are allowable, allocable, reasonable, and necessary. Generally, costs that are allowable include salaries, equipment, and supplies, as long as these are "necessary and reasonable" specifically for the purpose of the award. Allowable costs are determined by reference to the relevant OMB Cost Principles, located at 2 C.F.R. Part 200. All sub-awards under awards are subject to those federal cost principles applicable to the particular type of organization concerned. Contracts under awards are subject to requirements in 2 C.F.R. 200.317-.326."

Indirect Costs: If an applicant has not previously established an indirect cost rate with a Federal agency it may choose to use the de minimis indirect cost rate of 10% of Modified Total Direct Cost as allowable under 2 C.F.R. §200.414 or negotiate a rate with the DOC. The negotiation and approval of such a new rate is subject to the procedures required by NOAA and the Department of Commerce (DOC) Standard Terms and Conditions, Section B.06. 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, Maryland 20910, lamar.revis@noaa.gov.

NCCOS/CRP will not fund start-up or operational costs for private business ventures and neither fees nor profits will be considered as allowable costs. Ship costs may not be included in indirect cost calculations unless specified within the indirect cost rate agreement of the institution. NCCOS/CRP will not pay for ship overhead expenses otherwise. If indirect costs are applied, an approved indirect cost agreement or budget revision will be required before an application can be recommended for funding.

G. Other Submission Requirements

Applications submitted in response to this Announcement are strongly encouraged to be submitted through the Grants.gov website. The full funding Announcement for this program is available via the Grants.gov website: <http://www.grants.gov>. You will be able to access, download and submit electronic grant applications for NOAA Programs in this Announcement at <http://www.grants.gov>. NOAA strongly recommends that you do not wait until the application deadline date to begin the application process through Grants.gov.

Applicants must register with Grants.gov before any application materials can be submitted. To use Grants.gov, applicants must have a Dun and Bradstreet Data Universal Number System (DUNS) number and be registered in SAM, and periodic renewals are required. Applicants can receive a DUNS number at no cost by calling the dedicated toll-free DUNS Number request line at 1-866-705-5711 or online at <http://fedgov.dnb.com/webform>. Allow a minimum of five days to complete the SAM registration. (Note: Your organization's Employer Identification Number (EIN) will be needed on the application form). An organization's one-time registration process may take up to three weeks to complete. In addition, it may take two days until the applicant is notified as to whether NOAA received the application, so allow sufficient time to ensure applications are submitted before the closing date.

After electronic submission of the application through Grants.gov, the person submitting the application will receive, within the next 24 to 48 hours, up to three email messages from Grants.gov updating them on the progress of their application. The first email will confirm receipt of the application by the Grants.gov system, and the second will indicate that the application has either been successfully validated by the system before transmission to NOAA or has been rejected because of errors. Only validated applications are sent to NOAA for review. After the application has been validated, this same person will receive a third email, generally within two days, when the application has been downloaded by NOAA.

NOAA employees are not allowed to assist in the preparation of an application or proposal, except that these individuals may provide you with information on program goals, funding priorities, application procedures, and completion of application forms. Because this is a

competitive program, NOAA staff will not provide assistance in conceptualizing, developing, or structuring proposals, or write letters of support for an application or proposal.

If use of Grants.gov is not feasible, contact the NCCOS Grants Administrator (see Section VII for contact information) as soon as possible and no later than a week before the due date to assess whether alternative arrangements can be made. Please refer to Section IV.D. Submission Dates and Times to help ensure your application is received on time.

V. Application Review Information

A. Evaluation Criteria

Reviewers will assign scores to applications ranging from 0-5100 points based on the following five standard NOAA evaluation criteria. The percentage weight for each of which is indicated below in parenthesis. Written comments are required to justify provided scores in each section of the review. Applications that best address these criteria will be most competitive.

1. Importance and/or relevance and applicability of proposed project to the program goals: This ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, Federal, regional, state, or local activities. Does the research address respectively the priorities of the HCTI (Section I.B). What is the management relevance of the proposed work? (35 percent)
2. Technical/scientific merit: This assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, whether there are clear project goals and objectives. Does the proposal include an acceptable Data Management Plan that includes details on the types of environmental data and information expected and how and when the data will be shared? Proposals should provide a clear definition of the project design, strengths and/or weaknesses and the means that are to be employed for securing productive results (35 percent)
3. Overall qualifications of applicants: This ascertains whether the applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project. This includes the capability of the investigator and collaborators to complete the proposed work as evidenced by past research accomplishments, previous cooperative work, timely communication, and the sharing of findings, data, and other research products (as described in the Accomplishments from Prior Federal Support). (15 percent)

4. Project costs: The Budget is evaluated to determine if it is realistic and commensurate with the project needs and timeframe. Are costs for implementing the HCTI reasonable? Does the project as proposed maximize the amount of funds available for the sub-projects? (10 percent)

5. Outreach and education: NOAA assesses whether this project provides a focused and effective education and outreach strategy regarding NOAA's mission to protect the Nation's natural resources. The applicant must include plans for communicating and disseminating the results of research in ways that are appropriate to inform the relevant management entities that will use the results of the proposed work, including specific products, outcomes, and timing of the proposed work that will be used in achieving this goal. (5 percent)

B. Review and Selection Process

A LOI is required as described in Section IV.B. NOAA Program Managers will review each LOI to determine whether they describe clearly how the proposed activities will fulfill the goals and objectives in Section I.B. Letters or emails to encourage or discourage a full application are scheduled to be sent out approximately two weeks after the LOI due date.

Subsequently, once NOAA has received a full application, an initial administrative review is conducted to determine compliance with requirements and completeness of the application. Ineligible, incomplete, and/or non-responsive applications may be eliminated from further review. Applicants that did not previously timely submit an LOI will not be considered. NOAA, in its sole discretion, may continue the review process for applications with non-substantive issues that can easily be rectified or cured. All applications that pass this initial review will be evaluated and scored individually by independent peer mail review and/or by independent peer panel review.

Both Federal and non-Federal experts may be used in this process. The peer mail reviewers will be at least three individuals with expertise in the subjects addressed by particular applications. Each mail reviewer will see only certain individual applications within their area of expertise, and score them individually on a scale of one to five, where scores represent respectively: Excellent (5), Very Good (4), Good (3), Fair (2), Poor (1). Both whole and ½ scores will be acceptable. Reviewers will consider the relative weighting of each of the evaluation criteria in providing an overall proposal score.

Subsequently, NOAA will convene a peer panel comprised of several individuals, with each individual having expertise in a separate area, so that the panel, as a whole, covers a range of relevant scientific expertise. The panel will have access to all mail reviews of proposals and

will use the mail reviews in discussion and evaluation of the proposals. The peer panel shall rate the proposals using the evaluation criteria and scoring method provided above (and used by the mail reviewers). Individual peer panel reviewers will consider the relative weighting of the evaluation criteria in providing their individual score. The individual peer panelists' scores shall be combined, using one or more methods, to obtain a numerical ranking of the proposals. If a full review (mail and panel) is conducted, only the panel scores shall be used to rank each proposal. If any non-Federal reviewer is used, no consensus advice will be given by the independent peer mail review or the review panel.

The NOAA Program Managers will neither vote or score applications as part of the independent peer review panel nor participate in discussion of the merits of the applications other than to ask/answer questions. Those applications receiving an average panel score of "Fair" or "Poor" will not be given further consideration, and applicants will be notified of non-selection.

For the applications scored by the reviewers as either "Excellent," "Very Good," or "Good," the NCCOS/CRP Program Manager will (a) create a ranking of the applications to be recommended for funding using the average panel scores; (b) recommend the total duration of funding for each application; and (c) recommend the amount of funds available subject to the availability of fiscal year funds. Recommendations for funding are forwarded from the NCCOS/CRP Program Manager to the NCCOS/CRP Director for development of the final recommendation to the Selecting Official, the Director of NCCOS or designee, for the final funding recommendation decision. Recommendations will be made using the rank order generated by the peer-review process unless justification is provided to select a proposal out of rank order. Justification must be based on one or more of the selection factors listed below in Section V.C.

NOAA reserves the right to negotiate the budget with the applicants that have been selected to receive awards, which may include requesting that the applicant remove certain costs, combine budgets into a single application, add/subtract expertise, or change the lead or subaward institution. Additionally, NOAA may request that the applicant modify objectives or work plans and provide supplemental information required by the agency prior to award. NOAA may select some, all, or none of the applications, or part(s) of any particular application, and may request that applicants combine projects. In addition, applications rated by the panel as either "Excellent," "Very Good," or "Good" that are not funded in the current fiscal period, may be considered for funding in another fiscal period without having to repeat the competitive review process.

The Selecting Official will make recommendations to the NOAA Grants Management

Division, and the final approval of selected applications and issuance of awards will be by the NOAA Grants Officer. The award decisions of the NOAA Grants Officer are final.

The NOAA Grants Officer will review financial and grants administration aspects of a proposed award, including conducting an assessment of the risk posed by the applicant in accordance with 2 C.F.R. 200.206. In addition to reviewing repositories of government-wide eligibility, qualifications or financial integrity information, the risk assessment conducted by NOAA may consider items such as the financial stability of an applicant, quality of the applicant's management systems, an applicant's history of performance, previous audit reports and audit findings concerning the applicant and the applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities. See also "Review of Risk" in Section VI. of this Announcement.

Applicants should be in compliance with the terms of any existing NOAA grants or cooperative agreements and otherwise eligible to receive Federal awards, or make arrangements satisfactory to the NOAA Grants Officer, to be considered for funding under this competition. All reports due should be received and any concerns raised by the agency should be timely addressed in order to receive a new award. Upon review of these factors, if appropriate, specific award conditions that respond to the degree of risk may be applied by the NOAA Grants Officer pursuant to 2 C.F.R. 200.208. In addition, NOAA reserves the right to reject an application in its entirety where information is uncovered that raises a significant risk with respect to the responsibility or suitability of an applicant. The final approval of selected applications and issuance of awards will be by the NOAA Grants Officer.

When a decision has been made (whether an award or declination), verbatim anonymous copies of reviews and summaries of review panel deliberations, if any, will be made available to the applicant. Declined applications will be held in NCCOS/CRP for three years in accordance with current retention policies, and then destroyed.

C. Selection Factors

Proposals may be selected out of rank order based upon one or more of the following factors:

1. Availability of funding.
2. Balance/distribution of funds.
 - (a) geographically.

- (b) by type of institutions.
 - (c) by type of partners.
 - (d) by research areas.
 - (e) by project types.
3. Whether this project duplicates other projects funded or considered for funding by NOAA or other federal agencies.
 4. Program priorities and policy factors, as noted in Section I.A. & I.B.
 5. Applicant's prior award performance.
 6. Partnerships and/or participation of targeted groups.
 7. Adequacy of information necessary for NOAA to make a NEPA determination and draft necessary documentation before recommendations for funding are made to the NOAA Grants Officer.

Awards may also be modified for selected projects depending on budget availability or according to the selection factors listed above.

D. Anticipated Announcement and Award Dates

Subject to the availability of funds, review of the applicants will begin upon receipt. Applications may be notified of award or declination by September 2022, and applicants should use a start date of September 1, 2022.

VI. Award Administration Information

A. Award Notices

The notice of award is signed by the NOAA Grants Officer and is the authorizing document. It is provided electronically through NOAA's Grants Online system to the appropriate business office of the recipient organization.

B. Administrative and National Policy Requirements

Successful applicants may be asked to modify objectives, work plans, or budgets prior to final approval of an award. The exact amount of funds to be awarded, the final scope of activities, the project duration, and specific NOAA cooperative involvement with the activities of each project will be determined in pre-award negotiations among the applicant, the NOAA Grants Office, and NOAA program staff.

Award documents provided by the Grants Officer may contain special award conditions limiting the use of funds for activities that have outstanding environmental compliance requirements. These special award conditions may also include other compliance requirements for the award as applicable and will be applied on a case-by-case basis. Applicants are strongly encouraged to review award documents carefully before accepting a Federal award so they are fully aware of the relevant terms and conditions that have been placed on the award.

1. Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements

The DOC 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 <http://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 DOC 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 Financial Assistance Standard Terms and Conditions

Successful applicants who accept a NOAA award under this solicitation will be bound by DOC Financial Assistance Standard Terms and Conditions. A current version of this document is available at <https://www.commerce.gov/oam/policy/financial-assistance-policy>.

NOAA will also add to any award Agency-Specific Administrative Terms with requirements related to payment processing, reporting, and related matters. A current version is found online at

<https://www.noaa.gov/sites/default/files/legacy/document/2021/Mar/Administrative%20Standard%20Award%20Conditions%20for%20NOAA%20Financial%20Assistance%20Awards>

%2002.18.2021.pdf.

In addition, award documents provided by the NOAA Grants Management Division in the Grants Online award package may contain SACs unique to a project, including conditions that may limit the use of funds for activities that have outstanding environmental compliance requirements and/or stating other compliance requirements for the award as applicable.

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 have not yet been appropriated for the programs listed in this notice. NOAA or the DOC are not responsible for direct costs of proposal preparation. Publication of this Announcement does not obligate NOAA to award any specific project or to obligate any available funds.

5. National Environmental Policy Act (NEPA).

The National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4321 et seq., as implemented by the Council on Environmental Quality Regulations (40 CFR Parts 1500 through 1508), requires that Federal agencies include in their decision-making processes appropriate and careful consideration of all environmental effects of proposed actions, analyze potential environmental effects of proposed actions and their alternatives, avoid or minimize adverse effects of proposed actions, and restore and enhance environmental quality to the extent practicable. Therefore, NOAA must analyze the potential environmental impacts, as required by NEPA, for applicant projects or proposals which are seeking NOAA Federal Funding Opportunities to ensure applicant projects or proposals are in compliance with NEPA and all policies and procedures in NOAA Administrative Order (NAO) 216-6A and the NAO 216-6A Companion Manual and all applicable Federal, state, and local environmental laws, regulations, and Executive Orders (EOs) aimed at protecting human health, the environment, natural resources, and cultural resources.

Detailed information on NOAA compliance with NEPA can be found at the following NOAA NEPA website: <http://www.nepa.noaa.gov/>, and in the NAO 216-6A; <https://www.noaa.gov/organization/administration/nao-216-6a>.and the associated companion manual: <http://www.nepa.noaa.gov/docs/NOAA-HQ-2016-0145%20NAO%20216-6A%20Companion%20Manual.pdf>.

Examples of existing Environmental Assessments include the PEA for the PCMHAB program and the Supplemental Environmental Assessment (SEA) to the PCMHAB program

for the Nano-bubble Ozone Technology can be found on this website:
https://cdn.coastalscience.noaa.gov/page-attachments/about/pcm_hab_pea_finaldoc.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). Applicants to be recommended for funding will may also be required to answer relevant questions from the "Environmental Compliance Questionnaire for NOAA Federal Financial Assistance Applicants" (OMB Control No. 0648-0538) or other questionnaires to fulfill compliance with NEPA and all other environmental laws, regulations, and Executive Orders aimed at protecting human health, the environment, natural resources, and cultural resources. The NCCOS/CRP Program Manager will determine which questions are relevant to each specific proposal. Answers must be provided before the application can be submitted for final funding approval.

In addition to providing specific information on 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. See also Section IV.B. of this announcement.

6. 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. 200.206. 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.

7. Minority Serving Institutions

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.

8. Permits

It is the applicant's responsibility to obtain all permits and approvals from Federal, state, and local governments and private landowners where necessary for the proposed work to be conducted. If applicable, documentation of requests or approvals of environmental permits must be received by the NCCOS/CRP Program Manager prior to release of funding. Failure to apply for and obtain Federal, state, and local permits, approvals, or letters of agreement may delay the award of funds if a project is otherwise selected for funding. In some cases, if additional permits and approvals are required after an application is selected, funds may be withheld by the Grants Officer under a SAC requiring the recipient to submit required permits and approvals.

9. Access to Information

Patentable ideas, trade secrets, privileged or confidential commercial or financial information, disclosure of which may harm the proposer, should be included in proposals only when such information is necessary to convey an understanding of the proposed project. Such information should be clearly marked in the proposal or included as a separate statement accompanying the proposal and should be appropriately labeled with a legend such as, "The following is [proprietary or confidential] information that [name of proposing organization] requests not be released to persons outside the Government, except for purposes of review and evaluation." As an alternative example 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. While NOAA will make every effort to prevent unauthorized access to such material, it is not responsible or in any way liable for the release of such material.

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 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.

A proposal that results in an award will be available to the public on request, except for privileged information or material that is personal, proprietary or otherwise exempt from disclosure under law. Appropriate labeling in the proposal aids identification of what may be specifically exempt. Such information will be withheld from public disclosure to the extent permitted by law, including FOIA. Without assuming any liability for inadvertent disclosure, NOAA will seek to limit disclosure of such information to its employees and to outside reviewers when necessary for merit review of the proposal or as otherwise authorized by law. Portions of proposals resulting in grants that contain descriptions of inventions in which either the Government or the grantee owns a right, title, or interest (including a nonexclusive license) will not normally be made available to the public until a reasonable time has been allowed for filing patent applications. NOAA will notify the grantee of receipt of requests for copies of funded proposals so the grantee may advise NOAA of such inventions described, or other confidential, commercial or proprietary information contained in the proposal.

In addition, applicants are also reminded that under 2 C.F.R. § 200.303(e) 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 DOC assistance award. By submitting an application, an applicant (1) agrees to cooperate with DOC and external project and program evaluators and submit required financial and performance information and data in an accurate and timely manner, and (2) acknowledges and understands that information and data contained in applications for financial assistance, as well as, information and data contained in recipient financial, performance and other reports, may be used by the DOC in conducting reviews and evaluations of its financial assistance projects and programs.

Applicants are notified that DOC and other Federal employees, Federal agents and contractors, and/or non-Federal personnel who enter into appropriate confidentiality and nondisclosure agreements may access, review, and evaluate applicant and recipient information and data.

10. Scientific Integrity

The Science Program adheres to the principles of scientific integrity. This policy can be

found at: <https://www.noaa.gov/organization/administration/nao-202-735d-2-scientific-integrity>.

C. Reporting

All performance (i.e., technical progress) reports shall be submitted electronically through NOAA's Grants Online system unless the recipient does not have electronic access. In that case, performance (technical) reports are to be submitted to the NCCOS/CRP Program Manager (see section VII for contact information). All financial reports shall be submitted in the same manner. All ship time use must be reported by the PI or Chief Scientist on each cruise within the performance reports.

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 Subaward Reporting System (FSRS) available at <https://www.fsrs.gov/> on all sub-awards over \$25,000. Refer to 2 C.F.R. Part 170.

Data Reporting Requirement

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 (see Data Management Guidance to Proposal Writers below). 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.

Data Management Guidance to Proposal Writers

1. For questions regarding data management and implementing this guidance: refer to Section VII. for NCCOS Grants Administrator contact information.

2. Data Accessibility: NCCOS/CRP requires that public access to grant- produced data be enabled as follows; Data Management Plans (see Section IV.B.2.) submitted with Proposals should reflect one or more of the option(s):

Option A: For the majority of oceanographic and ecological data, except those listed below, funding recipients are expected to submit data to the NOAA/NCEI for long-term preservation, which will provide public access, archiving, discovery metadata meeting NOAA standards and formats, and a Digital Object Identifier (DOI). NCCOS/CRP has held preliminary consultation with NCEI regarding these pending data.

Option B: For any other data not appropriate for submission to NOAA/NCEI, funding recipients are expected to submit data to an appropriate data facility (i.e., National Institutes of Health's GenBank for genomics data) that preserves data, properly manages archived data to assure their quality, mints DOIs, and makes archived data and related information available to users in a timely and efficient manner. Funding recipients should submit discovery metadata meeting NOAA standards and formats documenting these non-NOAA data archives to the NCCOS/CRP Program Manager (see Section VII).

Option C: For limited-release data that are limited by law, regulation, policy, security requirements, commercial or international agreements, or valid technical considerations, funding recipients may request permission not to make data publicly accessible from the NCCOS/CRP Program Manager (see Section VII).

3. Technical recommendations: The HCTI Program is not offering specific technical guidance. Proposals are to describe their proposed approach. Use of open-standard formats and methods is encouraged. Definitions of data management terms are included here:

Environmental data are recorded and derived observations and measurements of the physical, chemical, biological, geological, and geophysical properties and conditions of the oceans, atmosphere, space environment, sun, and solid earth, as well as correlative data such as socio-economic data, related documentation, and metadata. Digital audio or video recordings of environmental phenomena (such as animal sounds or undersea video) are included in this definition. Numerical model outputs are included in this definition, particularly if they are used to support the conclusion of a peer-reviewed publication. Data collected in a laboratory or other controlled environment, such as measurements of animals and chemical processes, are included in this definition.

Sharing data means making data publicly visible and accessible in a timely (see below) manner at no cost (or no more than the cost of reproduction), in a format which is machine-readable and based on open standards, along with metadata necessary to find and properly use the data. Data are to be made available in a form that would permit further analysis or reuse: data must be encoded in a machine-readable format, preferably using existing open standard formats; data must be sufficiently documented, preferably using open metadata standards, to enable users to independently read and understand the data. Data should undergo quality control (QC) and a description of the QC process and results should be referenced in the metadata.

Machine-readable means the data are stored on a computer in a digital format whose structure is well described and which can be read without the aid of a human. An open standard format is one which does not require proprietary software to be read. Metadata is documentation that is machine-readable and structured according to an open-standard format and which describes the data so that users can search for, access, read, understand, and use the data. International Organization for Standardization (ISO) EXtensible Markup Language (XML) is an acceptable metadata format.

Timely means no later than publication of a peer-reviewed article based on the data, or two years after the data are collected and verified, or two years after the original end date of the

grant (not including any extensions or follow-on funding), whichever is soonest, unless a delay has been authorized by the NCCOS/CRP..

NCCOS/CRP resources for data archiving at NOAA NCEI have already been identified; proposals should not include such costs. Proposals are permitted to include the costs of additional project-level data management, including: coordinating, organizing, documenting, formatting, or otherwise preparing datasets for submission to NOAA or non-NOAA data facilities; establishing and maintaining data access tools and services and related metadata; managing non-digital data that are not required to be made publicly accessible, including laboratory notebooks, preliminary analyses, drafts of scientific papers, plans for future research, peer review reports, communications with colleagues, or physical objects, such as laboratory specimens.

VII. Agency Contacts

Technical Information: Felix Martinez, NCCOS/CRP Program Manager for the PCMHAB and HCTI Programs, 734-741-2254, felix.martinez@noaa.gov.

Grants Administration Information: Jennifer Hinden, NCCOS Business Support Branch, 240-533-0197, Jennifer.Hinden@noaa.gov.

VIII. Other Information

1. Checklist for Required and Requested Documents:

- (1) SF-424
- (2) Summary Title Page
- (3) Abstract
- (4) Project Description
- (5) References
- (6) Milestone Chart
- (7) Biographical Sketch (for each PI and co-PI)

(8) Current and Pending Support (for each PI and co-PI)

(9) Permits (if none, say so)

(10) Accomplishments (if none, say so)

(11) Budget Narrative (One for the lead institution and each subaward/subcontract).

(12) CD-511

(13) SF-424B

(14) SF-424A (One for the lead institution and each subaward/subcontract)

(15) Alphabetized Collaborator List (ONE excel spreadsheet for all)

2. Additional Document (if applicable)

Indirect Rate Agreement (requested).

Signed Approval from subaward/subcontractor institutes; Disclosure of Lobbying Activities Form (SF-LLL)