

Social, Cultural and Economic Assessment of Harmful Algal Blooms

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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: Social, Cultural and Economic Assessment of Harmful Algal Blooms

Announcement Type: Initial

Funding Opportunity Number: NOAA-NOS-NCCOS-2024-2008101

Federal Assistance Listings Number: 11.478, Center for Sponsored Coastal Ocean Research - Coastal Ocean Program

Dates: The required letters of intent (LOI) must be submitted by e-mail to nccos.grant.awards@noaa.gov and received by 11:59 p.m. Eastern Time on the October 13, 2023. Applicants will receive an email verification of receipt.

Responses to LOIs should be expected by approximately two weeks after the LOI deadline or October 27, 2023.

Full applications must be received and validated by Grants.gov by 11:59 p.m. Eastern Time January 17, 2024. 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. Applicants must be registered with eRA Commons as described in Section IV.G. of this Announcement. Registering with eRA Commons can take up to four weeks to process. It is encouraged that applicants register with eRA Commons as soon as possible to avoid any delays.

3. 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 for the Social, Cultural and Economic Assessment of Harmful Algal Bloom program. Funding is contingent upon the availability of Fiscal Year 2024 Federal appropriations. It is anticipated that projects funded under this announcement will have a September 1, 2024 start date. An informational webinar on this solicitation will be offered within approximately two weeks from the publication date of the NOFO. Information regarding this announcement, including webinars and additional background information, is available on the NCCOS funding opportunities website (<https://coastalscience.noaa.gov/about/funding-opportunities/>).

It is anticipated that up to approximately \$1,500,000 may be available in Fiscal Year 2024 for the first year for all projects combined. If funds become available for this program, 3 to 5 projects are expected to be funded at the level of \$300,000 to \$400,000 per year per proposal. Projects are not expected to exceed 3 years in duration. NCCOS/CRP may reject any proposals submitted with an annual budget that is greater than \$400,000 for any year.

NOAA encourages applicants and awardees to support the principles of diversity, equity, and inclusion when writing their proposals and performing their work. NOAA defines diversity as the mixture of the unique attributes that shape an individual's identity which they bring into the workplace to help NOAA accomplish its goals (1). Diversity refers to demographic diversity (e.g., race, gender, sexual orientation), experiential diversity (e.g., affinities, hobbies, and abilities), and cognitive diversity (e.g., sensory processing and problem solving). Equity is defined as the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment (2,3). NOAA defines inclusion as a culture that values the unique attributes of all team members. Inclusion is an environment which is respectful, collaborative, supportive, and one that allows for equal access (1). Inclusion requires active and intentional engagement on the part of everyone and provides a feeling of belonging. By promoting diversity, equity, and inclusion NOAA seeks to improve the creativity, productivity, and the vitality of its research community.

The required LOI should be sent by e-mail to nccos.grant.awards@noaa.gov. Full proposals will not be considered if a LOI was not submitted.

Electronic Access: Proposals should be submitted through Grants.gov, <http://www.grants.gov>.

Sign up to receive any potential amendments to this Announcement via www.grants.gov.

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

1. Overview of the NCCOS Competitive Research Program

The Competitive Research Program (CRP), part of the National Oceanic and Atmospheric Administration (NOAA) National Centers for Coastal Ocean Science (NCCOS), supports the development of actionable information and tools that improve how the nation protects, manages, and conserves ocean and coastal ecosystems. NCCOS/CRP funds regional-scale and targeted research through a competitive, peer-reviewed process to address our Nation's most pressing issues including harmful algal blooms and hypoxia research as authorized under the Harmful Algal Bloom and Hypoxia Research and Control Act, coastal resiliency, sea-level rise, ocean acidification, mesophotic coral ecosystems, and effective ecosystem-based management.

Research supported by NCCOS/CRP seeks to produce actionable information and user-driven products that will enable resource managers to assess management and policy strategies, as well as increase scientific understanding on issues threatening ecosystems and communities. To accomplish this, NCCOS/CRP emphasizes a collaborative research process that involves resource managers, planners, policymakers, and impacted communities as research project partners or advisors. To ensure useful results, NCCOS/CRP requires articulation of outcomes that benefit management in proposals and recipients must report progress toward achieving outcome-based goals annually (see Section IV.B.).

2. Social, Cultural and Economic Assessment of HABs Objectives

a) Harmful Algal Bloom (HAB) Occurrence and Growing Problem of Impacts

Marine, estuarine, and Great Lakes waters of the United States are increasingly impacted by HABs with blooms reported in nearly every coastal state. The species that cause HABs in the U.S. are as diverse as the habitats in which they occur. HABs impact public health, key sectors of our Blue Economy (4), and the health of our coastal ecosystems. Multiple human poisoning syndromes are associated with the consumption of seafood contaminated with algal toxins. Human exposure to aerosolized or water-

borne algal toxins and dermatological contact with HABs can also cause negative impacts. HABs can cause mortalities of fish and wildlife, ecosystem disruption, hypoxia and anoxia from high biomass blooms, and noxious impacts associated with the accumulation and decay of massive microalgal and seaweed blooms. These many and diverse impacts makes it challenging to derive a single national estimate of the annual economic impact from all U.S. HABs.

The increase in frequency, extent, and variety of HABs has increased society's concerns about the safety of our seafood and drinking water, the health of endangered species, fish and wildlife, the sustainability of beach and lakeside communities, losses to fisheries and aquaculture, increased strain on shrinking state, local, cultural and tribal resources, and long-term aquatic ecosystem changes. Economic costs associated with HAB impacts on public health, fisheries, recreation, and tourism, as well as the use of scarce funds for monitoring and management can be significant for local communities. A single HAB event can cost tens of millions of dollars, including toxin monitoring; closures of shellfish beds; fish, shellfish, turtles, birds, and mammal mortalities; closures of affected fisheries; disruptions in recreation and tourism; threats to public and coastal resource health; publication of watershed, health, drinking water and seafood advisories; and medical treatments (5). Additional socio-economic costs can stem from public reactions to HAB events such as canceled vacations, job losses due to decreased demand for seafood, lower value for coastal or lake-front real-state or property, or loss of access to key subsistence foods.

b) The Social, Cultural and Economic Assessment of HABs Program

Social, cultural and economic research provides critical information that allows communities, resource management, public health agencies, affected sectors, and scientists to develop and implement coordinated, effective responses to HAB events at local, state and regional scales. Qualitative and quantitative studies are needed to determine the extent to which HAB events and management responses (e.g., fisheries closures, restriction of recreational uses, drinking water bans or treatments, etc.) directly or indirectly result in social, cultural and economic impacts (e.g., cost of management responses, local and tourist dollars spent, loss of recreational opportunities, community conflict, increased reliance on social services, disruption to or shifts in livelihoods, subsistence and food security,

degradation of cultural practices and values, etc).

The research needed to understand the social, cultural and economic impacts of HABs has been the focus of national level planning efforts that include the Harmful Algal Blooms and Hypoxia Comprehensive Research Plan and Action Strategy (6), HARRNESS (7), HARR-HD, (8) the HAB RDDTT (9) Workshop Report (Chapter 2 Section 2.B.3.c.) and the 2020 Workshop on the Socio-economic Effects of Harmful Algal Blooms in the U.S (5).

Past NCCOS competitive HAB funding opportunities have had limited success to date in stimulating many high quality research proposals needed to make progress in this field. As a result, the socioeconomic impacts of HABs remain poorly characterized.

B. Program Priorities

1. Social, Cultural, and Economic Assessment of HABs Priorities

NCCOS/CRP is soliciting proposals that assess the social, cultural and economic impacts of HAB events. Research funded through this opportunity may guide future research on the social, cultural and economic impacts of HAB events at a local, state, and regional, and national level, and inform the selection of management strategies and methods most appropriate to a specific HAB event and ongoing issues. Resulting research will also provide the necessary building blocks that can lead to a better national assessment of the social, cultural and economic impacts from HAB events.

Proposals must address at least one of the following priorities:

- Social and/or cultural impacts of HAB events response at local, state and/or regional scales.
- Economic impacts of HAB events at local, state and/or regional scales.
- Impacts of HAB events on subsistence at local, state and/or regional scales.

Within one of these priorities, ideal proposals will address at least one of the following objectives:

- Assess the impacts of HAB events on different human uses (e.g.,

commercial, recreational, and subsistence), human communities, social networks, and/or individuals;

- Identify and/or quantify actual and potential vulnerability and resilience of industries (e.g., shellfish, seafood and tourism), communities, and/or individuals to HAB events;
- Evaluate behavioral response to HAB events and/or HAB prevention, control and mitigation strategies;
- Measure the cost and benefits of HAB prevention, control, and mitigation strategies.

Examples include research that helps:

- Assess the social and/or cultural impacts of HAB events (e.g., changes in recreation and tourism, community conflict, changes in social, cultural, and/or psychological well-being, etc.);
- Assess subsistence impacts of HAB events (e.g., lost fishing and seafood access, changes in subsistence, changes in social, cultural, and/or psychological well-being, etc.);
- Assess the social and or cultural impacts of HAB events on vulnerable social groups or communities (e.g., are some groups disproportionately affected or less able to avert harm?);
- Evaluate behavioral changes that may occur during and after HAB events in different sectors and communities (e.g., temporal and spatial shifts in activities, changes commercial, recreational and subsistence use, community conflict, etc.);
- Evaluate perceptions, value, and use of information (e.g., how people perceive, understand, and act on advisories, trust or distrust management decisions, etc.);
- Determine the economic impacts of HAB events across communities, demographic groups, regions, and policy interventions (e.g., loss of access, loss in revenue, cost of avoidance, etc.)

- Estimate loss and cost by HAB events and sector (e.g., aquaculture industry, recreational activities, coastal tourism, etc.);
- Measure economic impacts of HAB events on individuals, households and communities associated with commercial, recreational, and subsistence fisheries (e.g., economic impact analysis, cost-benefit analysis, etc.)

Possible research products and outputs may include: 1) Research and strategies that lead to more accurate assessments of the direct social, cultural and or economic impacts of HAB events at the local, state, and regional scales 2) Development and/or use of transferable research approaches that can be applied to different HAB events and at different scales (e.g., local, state, regional).

While 3 to 5 projects are expected to be funded, NCCOS/CRP envisions funding at least one project focused on social, cultural and/or subsistence impacts of HAB events and at least one project focused on economic impacts of HAB events.

2. Examples of Non-Applicable Research Topics

NCCOS CRP coordinates with other NOAA, federal, and state research programs to leverage their research investments and avoid duplication of effort. The scope of these programs has been described in several reports (6,10,11,12,13). NCCOS Competitive HAB Programs will not fund research in the following areas:

- a) Research on inland or freshwater HABs except in the Great Lakes and coastal waters, which, as defined in the Coastal Zone Management Act (16 U.S.C. 1453 (3)), contain a measurable quantity or percentage of seawater. Research on freshwater toxins that are transported into the coastal zone is, however, permitted.
- b) Disease surveillance, clinical characterization, and therapeutic guidance in humans are the purview of other agencies, such as NSF/NIEHS COHH, CDC and FDA.
- c) Routine monitoring for HAB cells and toxins and water quality.
- d) Operational HAB forecasting and observation systems.

3. Management Technical Advisory Group

Application of research results for use by managers, policy-makers, and other end users through a highly integrated and collaborative approach is a central objective of NCCOS/CRP. Proposals should clearly articulate outcome-based management goals of the project (more information can be found in Section IV.B. and at <https://coastalscience.noaa.gov/about/fundingopportunities/outputs-and-outcomes/>) and a continuous engagement process with relevant end users. Engagement activities with end users may include, but are not limited to, annual meetings, workshops, training sessions on how to apply information or tools, and inclusion on coordination calls. The Lead Principal Investigator (PI) is strongly encouraged to establish a Management Transition Advisory Group (MTAG) to ensure effective collaboration between the project PI(s) and end users, and successful transfer of research results to the intended end user(s).

4. References

- (1) NOAA FY2020-2024 Diversity and Inclusion Strategic Plan, December 2020.
<https://www.noaa.gov/sites/default/files/legacy/document/2020/Dec/NOAA%202020-2024%20Diversity%20and%20Inclusion%20Strategic%20Plan.pdf>.
- (2) Government-Wide Strategic Plan To Advance Diversity, Equity, Inclusion. Accessibility In The Federal Workforce, November 2021. The White House.
<https://www.whitehouse.gov/wp-content/uploads/2021/11/Strategic-Plan-to-Advance-Diversity-Equity-Inclusion-and-Accessibility-in-the-Federal-Workforce-11.23.21.pdf>.
- (3) Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (EO 13985), January 20, 2021.
<https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/>
- (4) NOAA Blue Economy Strategic Plan 2021-2025, January 2021.
<https://oceanservice.noaa.gov/economy/blue-economy-strategy/>.
- (5) Proceedings of the Workshop on the Socio-economic Effects of Harmful Algal Blooms in the United States, U.S. National Office for Harmful Algal Blooms, Woods Hole Oceanographic Institution, March 2021.

<https://repository.library.noaa.gov/view/noaa/33455>.

- (6) National Science and Technology Council, Subcommittee on Ocean Sciences and Technology, 2016. Harmful Algal Blooms and Hypoxia Comprehensive Research Plan and Action Strategy: An Interagency Report. Washington, DC. 94 pp.
<http://www.whoi.edu/filesserver.do?id=230904&pt=10&p=19132>.
- (7) HARNNESS, 2005. Harmful Algal Research and Response: A National Environmental Science Strategy 2005-2015. Ramsdell, J.S., D.M. Anderson and P.M. Glibert (Eds.), Ecological Society of America, Washington DC, 96 pp.
<http://www.esa.org/HARNNESS/harnessReport10032005.pdf>.
- (8) HARR-HD, Bauer, M., ed. 2006. Harmful Algal Research and Response: A Human Dimensions Strategy. National Office for Marine Biotoxins and Harmful Algal Blooms, Woods Hole Oceanographic Institution, Woods Hole, MA, 58 pp
- (9) HAB RDDTT. 2008. Harmful Algal Bloom Research, Development, Demonstration, and Technology Transfer National Workshop Report. Dortch, Q., Anderson, D.M., Ayres, D.L., Glibert, P.M. (Eds). Woods Hole, MA.
hab.whoi.edu/wp-content/uploads/2018/05/RDDTT_National_Workshop_Report_Final_43464.pdf.
- (10) Jewett, E.B., Lopez, C.B., Dortch, Q., Etheridge, S.M., Backer, L.C., 2008. Harmful Algal Bloom Management and Response: Assessment and Plan. Interagency Working Group on Harmful Algal Blooms, Hypoxia and Human Health of the Joint Subcommittee on Ocean Science and Technology. Washington, DC, 76 pp. https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/jsost_hab0908.pdf.
- (11) Lopez, C.B., Jewett, E.B., Dortch, Q., Walton, B.T., Hudnell, H.K. 2008. Scientific Assessment of Freshwater Harmful Algal Blooms. Interagency Working Group on Harmful Algal Blooms, Hypoxia, and Human Health of the Joint Subcommittee on Ocean Science and Technology, Washington, D.C., 65 pp.
<http://www.whoi.edu/filesserver.do?id=41023&pt=10&p=19132>.
- (12) National Assessment of Harmful Algal Blooms in U.S. Waters. 2000. National Science and Technology Council Committee on Environmental and Natural Resources, 47pp. <https://docslib.org/doc/2056206/national-assessment-of-harmful-algal-blooms-in-us-waters>.

- (13) NOAA National Sea Grant College Program. 2001. Prevention, Control, and Mitigation of Harmful Algal Blooms: A Research Plan. 28pp.
<http://www.whoi.edu/fileserver.do?id=24160&pt=10&p=19132>.

C. Program Authority

Public Law 102-567, §201(c) authorized NOAA's Coastal Ocean Program, now known as the National Centers for Coastal Ocean Science (NCCOS) Competitive Research Program (CRP). The Harmful Algal Bloom and Hypoxia Research and Control Act (HABHRCA; 33 U.S.C. §4001-4010, 1998, 2004, 2014, and 2017) authorizes NCCOS CRP competitive Harmful Algal Bloom (HAB) research programs and directs NOAA to advance the scientific understanding and ability to detect, monitor, assess, and predict HAB and hypoxia events.

II. Award Information

A. Funding Availability

Funding is contingent upon the availability of Fiscal Year 2024 Federal appropriations. It is anticipated that up to approximately \$1,500,000 may be available in Fiscal Year 2024 for the first year for all projects combined. If funds become available for this program, 3 to 5 projects are expected to be funded at the level of \$300,000 to \$400,000 per year per proposal. Projects are not expected to exceed 3 years in duration. NCCOS/CRP may reject any proposals submitted with an annual budget that is greater than \$400,000 for any year. It is anticipated that projects funded under this announcement will have a September 1, 2024 start date.

B. Project/Award Period

Full applications may cover a project/award period up to 3 years.

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, full applications are not required for the continuation in the out 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 research projects 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 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 the research 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 each 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.

The start date should always begin on the first day of the month and the end date should always end on the last day of any given month when making a projection for the award start and end dates.

C. Type of Funding Instrument

In an effort to maximize the use of limited resources, applications from non-Federal, non-NOAA Federal, and NOAA Federal applicants will be evaluated in the same competition, with different funding instruments applicable to the type of applicant.

The funding instrument for a research application selected for funding from a non-Federal researcher is expected to be a cooperative agreement. A cooperative agreement is appropriate when substantial Federal government involvement is anticipated. This means that the recipient can expect substantial agency collaboration, participation, or intervention in project performance. Substantial involvement exists when: responsibility for the management, control, direction, or performance of the project is shared by the assisting agency and the recipient; or the assisting agency has the right to intervene (including interruption or modification) in the conduct or performance of project activities. "Substantial involvement" will be coordinated and communicated by NCCOS/CRP Program Managers, and can include collaboration and

participation by NOAA (but see section III.A.5-6), as well as NCCOS/CRP Program Manager involvement in PI meetings, setting up management advisory groups, development of management transition plans, and communication of project results.

If the non-Federal applicant is at an institution that has a NOAA Cooperative Institute (CI), <https://ci.noaa.gov/>, it is allowed to submit applications that reference the CI by attaching a cover letter to the application stating its desire to have the application associated with the CI. This letter should specify the name of the CI, the CI cooperative agreement number, and the NOAA-approved research theme and task that applies to the proposal. The application will use the Facilities & Administrative (F&A, or indirect cost) rate associated with the main CI agreement. If the application is selected for funding, NOAA will notify the university that a separate award will be issued with its own award number. However, the award will include two Special Award Conditions (SACs): (1) the existing University/NOAA Memorandum of Agreement (MOA) would be incorporated by reference into the terms of the competitive award, and (2) any performance report(s) for the competitive project must follow the timetable of the funding program and be submitted directly to the funding program.

Report(s) will be copied to the CI's administrator when due, to be attached to the main cooperative agreement progress report as an appendix. This will allow the CI to coordinate all the projects submitted through the CI, since the terms of these awards will specify that this is a CI project via the MOA.

If the non-Federal applicant is at an institution that has a NOAA approved Cooperative Ecosystem Studies Unit (CESU), <http://www.cesu.psu.edu/>, and meets the criteria described below for using that status, they may include a cover letter with their application stating their desire to have the application associated with that CESU. This letter should specify the name of the CESU. 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. The following criteria must be met for NOAA to use the established partnerships with CESUs:

1. The proposed project must fit within the objectives of the National CESU Network Program, which are to provide research, technical assistance, and education to Federal land management, environmental, and research agencies and their partners in biological, physical, social, cultural, or engineering disciplines needed to address natural and cultural resource management issues at multiple scales and in an ecosystem context.

2. The proposed project must fit the intent of the CESU's existing cooperative and joint agreement, which means (1) the research partnership will carry out or stimulate an activity (e.g., data, products, or services) for a public purpose, and (2) NOAA will be significantly involved in the work.

The funding instrument for a selected application from an eligible NOAA Federal applicant will be an intra-agency transfer of funds.

The funding instrument for a selected application from a non-NOAA Federal applicant will be through an inter-agency transfer of funds, provided legal authority exists for the Federal applicant to receive funds from another agency. Non-NOAA Federal applicants that intend to be the lead institution should contact the NCCOS Grants Administrator (refer to Section VII) to discuss how to structure budgets and prepare required documentation. PLEASE NOTE: Before non-NOAA Federal applicants may be funded, they must demonstrate that they have applicable legal authority for an inter-agency transfer of funds.

Support may be solely through NCCOS/CRP or partnered with other Federal offices and agencies. Unfunded proposals may be shared with other NOAA offices or other Federal Agencies for the purposes of collaboration and eliminating duplication.

The intra- and inter-agency transfers of funds are not Federal assistance (grants or cooperative agreements), and the policies described in this Announcement applicable to Federal assistance awards do not apply to Federal entities receiving intra- and inter-agency transfers of funds. In the agreements implemented in these situations, NOAA will be substantially involved in the projects in a manner similar to the cooperative agreements with non-Federal parties. Contact the NCCOS Grants Administrator for more information (refer to Section VII).

III. Eligibility Information

A. Eligible Applicants

Eligible applicants for Federal financial assistance in this competition are U.S. institutions of higher education, other non-profits, state, local, tribal government entities, U.S. Territories, and for-profit organizations. Federal agencies that possess the statutory authority to receive transfers of funds are eligible to submit applications for intra- or inter-agency funds transfers through this competition. Department of Commerce (DOC)/NOAA supports cultural and gender

diversity and encourages women and minority individuals and groups to submit applications to its programs. In addition, DOC/NOAA is strongly committed to broadening the participation of historically black colleges and universities, Hispanic serving institutions, tribal colleges and universities, Asian American and Native American Pacific Islander-Serving Institutions, and institutions that work in underserved areas. DOC/NOAA encourages applications involving any of the above institutions to apply.

Please note that:

- (1) PIs must be employees of an eligible entity listed above; and applications must be submitted through that entity. Non-Federal researchers should comply with their institutional requirements for application submission.
- (2) Non-Federal researchers affiliated with NOAA-University Cooperative/Joint Institutes will be funded through cooperative agreements.
- (3) Foreign researchers must apply as subawards or contracts through an eligible U.S. entity.
- (4) Federal applicants are eligible to submit applications for intra- or inter-agency funds transfers through this competition. Non-NOAA Federal applicants will be required to submit certifications or documentation showing that they have specific legal authority to accept funds for this type of research.
- (5) An eligible U.S. entity may propose Federal agency researchers as funded or unfunded collaborators. If Federal agency researchers are proposed as funded collaborators, the applicant should present the collaborator's funding request in the application in the same way documentation is provided for a subrecipient for purposes of project evaluation, even though intra- or inter-agency funding transfers will generally be used if the project is selected.
- (6) NCCOS researchers may apply through an eligible U.S. entity as funded or unfunded collaborators, but cannot be the lead PI on the application. NOAA Federal salaries will not be paid.

B. Cost Sharing or Matching Requirement

Requirement None.

C. Other Criteria that Affect Eligibility

Letters of intent are required. Applications that did not submit an LOI are not eligible and will be rejected. Each application must substantially comply with the 14 elements listed under Section IV.B(c) Content and Form of Application: Required Elements (1) - (14), 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

1. Letter of Intent (LOI)

LOIs are required. Any full proposals 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 investigator. The LOI should provide a concise description of the proposed work and its relevance to program priorities. The LOI should be no more than two 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.

(a) Tentative project title.

(b) Name phone number, email address, and institution of all PIs and specification of which individual is the Lead PI.

(c) Approximate cost of the project.

(d) Statement of the problem and its management relevance.

- (e) Brief summary of work to be completed, methodology to be used and the plan for transitioning results to management application.

CRP 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.

2. Full Application

(a) 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/>.

(b) 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 and will be responsible for distributing funds to the partner institutions with the exception of Federal agency partners. Federal agencies will be funded with either intra- or inter-agency agreements initiated by NCCOS. 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.

(c) Required Elements

Each application must substantially comply with the following 14 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 one- inch margins. The Collaborators List must be an Excel spreadsheet. The 14 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. Please ensure that the person who is listed as the authorized representative matches the signature, if there is shared signing authority, please submit supporting documentation.

- (2) Summary Title Page. One-page maximum. The Summary Title Page identifies the project's title and the PI's name, affiliation, complete address, phone, and email information. The requested funding amounts for each fiscal year should be included on the Summary Title Page. If this proposal is a resubmission from a previous NCCOS competition, indicate that information 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, and budget period. It should be written in the third person. The project summary should include an introduction of the problem, rationale, scientific objectives and/or hypotheses to be tested, and a brief summary of work to be completed. 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. The description of the proposed project must include four narrative sections: the Proposed Research, its Application to Management, a Data Management Plan, and a Statement of Diversity and Inclusion. The project description shall not exceed 18 pages. Page limits are as follows: Proposed Research and Application to Management (15 pages); Data Management Plan (two pages); Statement of Diversity and Inclusion (one page). These four sections must include the information as described below.

- a. Proposed Research

The Proposed Research narrative section should be thorough and explicitly indicate its relevance to the program goals and scientific priorities by:

- i. Identifying the topic that is being addressed by the proposal;

- ii. Describing the proposed scientific objectives and research activities in relation to the present state of knowledge in the field and in relation to previous and current work by the proposing PI(s);
- iii. Discussing how the proposed project lends value to the program goals; and
- iv. Identifying the function of each PI. The Lead PI will be responsible for communicating with the NCCOS/CRP Program Manager on all pertinent verbal or written information.

[Note: If the proposal is a resubmission from a previous competition, any concerns identified with the Project Description in the previous review process and provided to the applicant(s) should be addressed in the resubmitted proposal.]

b. Application to Management

The Applications to Management Narrative should establish the connection to relevant resource management needs by explicitly identifying the end user group(s) including evidence of the linkage between the scientific questions and management needs. The format and role of Management Technical Advisory Group (MTAG) (see Section I.B.) should be included in this section. The narrative should provide the management justification for the research by:

- i. Articulating the coordination with one or more end users.
- ii. Discussing the expected significance of the project to management priorities and needs. Specific management targets, with proposed outputs and outcomes, should describe how this project will improve management capabilities. Outputs are defined as products (e.g., publications and models) or activities that lead to outcomes (changes in management knowledge or action). Definitions and examples of outputs and outcomes can be accessed at: <https://coastalscience.noaa.gov/about/funding-opportunities/outputs-and-outcomes/>. The timeline for achieving outputs should be included in the Milestone Chart (below).

- iii. Describing specific activities, such as workshops or development of outreach materials, that will enhance information transfer from project scientists to relevant management entities, other end-users, or the public.
- iv. If the proposal includes a project advisory committee, such as a MTAG or Technical Advisory Committee, describing the structure, size, and activities of the advisory committee, particularly by including a plan for how the committee will engage with project PIs. Members of the advisory committee should be named, when possible. Letters may be included, but are not required, to indicate that they have agreed to serve on the advisory committee; these letters do not count against the page limits.

c. Data Management Plan

Proposals must provide a detailed Data Management Plan that describes how metadata and data collected as part of the project will be disseminated to the broader community, and plans for longer term archiving of these data. PIs that propose to collaborate with data centers or networks, except the National Center for Environmental Information (NCEI), are advised to obtain letters of commitment that affirm the collaboration. Where possible, all PIs are strongly encouraged to use existing data centers and data portals to archive and disseminate their data. All ocean acidification data must be archived and accessible through NCEI (<http://www.nodc.noaa.gov/oceanacidification/index.html>). Costs associated with use of data centers, or data archiving, should be included in the application budget. See the section on the NOAA Data Reporting requirements in Section VI.C.

d. Statement of Diversity and Inclusion

NOAA recognizes that it has a particular and unique opportunity to support NOAA's commitment to diversity, equity, and inclusion by taking an intentional step that encourages program applicants to consider the principles of diversity, equity, and inclusion as part of their scientific projects. This action has the potential to make an impact on not only the diversity, equity, and inclusion in science at NOAA, but also beyond the agency. In this

section, describe how well the proposed project incorporates the principles of diversity, equity, and inclusion. Examples could include, but are not limited to, broadening the participation of underrepresented groups; partnering with underserved communities to ensure relevant science, services and tools reach decision-makers; partnering with minority serving institutions or programs that promote diversity in science, technology, engineering, and mathematics (STEM); having a diverse project team and MTAG across several factors (e.g., sectors, age, career stage, gender, ethnicity, disability, geography, etc.); encouraging diverse perspectives from project team members and partners; and or fostering an inclusive environment that empowers and engages all team members.

- (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 PIs and co-PIs must provide summaries of up to two pages that include the following:
 - a. A listing of professional and academic credentials and mailing address; and
 - 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 website for your use:
<https://coastalscience.noaa.gov/about/application-forms>.
You should respond to this element whether or not you have any current and/or pending support, i.e., by indicating “not applicable.”

- (9) 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) 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. For additional budget guidance see:
<https://coastalscience.noaa.gov/about/funding-opportunities/requirements/>.

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 personnel (graduate students, post-doctoral researchers, technicians) should be identified by their job title, their personnel costs explained similar to PI personnel costs, and when they are expected to be identified. The contribution of any personnel to the project goals should be explained.

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.

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 Corporate Services: <https://www.corporateservices.noaa.gov/~noaaforms/eforms/nf57-11-02.pdf> Required information and procedures are detailed in a Charter Vessel Acquisition and Safety NOAA Administrative Order which can be accessed via the NOAA Office of the Chief Administrative Officer website at: <https://www.noaa.gov/organization/administration/nao-209-115-noaa-employees-aboard-non-noaa-vessels> in advance of the cruise.

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 unless a Federal agency is a funded collaborator. Federal agencies may be funded directly by NOAA. The lead institution is responsible for sending funds to the other subaward institutions. A separate budget narrative is required for each subaward (including Federal collaborators) and must be provided to the lead institution for submission. Signed approval from each identified subaward institution is 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.

- (11) 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. Please ensure that the person who is listed as the authorized representative matches the signature, if there is shared signing authority, please submit supporting documentation.
- (12) 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.

- (13) 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 a separate row in Section A 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 SF-424A Rev. 7-97, 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.

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.

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

- (14) 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.

(d) 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 14 required elements, applicants may provide the following:

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

Each applicant (unless the applicant is an individual or Federal awarding agency that is excepted from those requirements under 2 CFR 25.110(b) or (c), or has an exception approved by the Federal awarding agency under 2 CFR 25.110(d)) is required to: (i) Be registered in SAM before submitting its application; (ii) Provide a valid unique entity identifier (UEI) in its application; and (iii) 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. NOAA may not make a Federal award to an applicant until the applicant has complied with all applicable UEI and SAM requirements and, if an applicant has not fully complied with the requirements by the time NOAA is ready to make a Federal award, NOAA 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

Full applications must be received and validated by Grants.gov by 11:59 p.m. Eastern Time on January 17, 2024. 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

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 DOC. The negotiation and approval of such a new rate is subject to the procedures required by NOAA and the DOC Standard Terms and Conditions, Section B.06. The NOAA contact for indirect or facilities and administrative costs is: Raishan Adams, Grants Officer, NOAA Grants Management Division, 1325 East West Highway, 9th Floor, Silver Spring, Maryland 20910, raishan.adams@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. 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 previously submitted to NCCOS/CRP Federal Funding Opportunities and not recommended for funding must be revised to address any reviewer or panel concerns before resubmission. Resubmitted applications that have not been revised to address identified concerns may be returned without review.

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 be registered in SAM, and periodic renewals are required. 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.

Applicants must also register with eRA Commons using the unique entity identifier (UEI) obtained from SAM.gov. The applicant's organization must be registered by someone with signature authority to legally bind the organization in grants administration matters. Only authorized organization officials are qualified to be a signing official (SO) for their organization. If your organization is already registered with eRA Commons because you've applied for a federal grant that currently uses eRA systems, you do not need to register again. Registering with eRA Commons can take up to four weeks to process. It is encouraged that applicants register with eRA Commons as soon as possible to avoid any delays. Please see the eRA Commons Registration Webinar Recording for more information and a registration demonstration. eRA Commons may be accessed online at <https://public.era.nih.gov/commonsplus>.

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.

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

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 the priorities stated in Section I.B of this Announcement? Are the expected research products clearly identified, including how they will be used to achieve management outcomes? (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. The proposed work should have focused objectives and a complete and technically sound strategy for project design, methodologies, data management, data analysis, and development of products and outcomes in support of the 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? (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 for 10 percentage points and the statement of Diversity and Inclusion described in Section IV.B.(c) 4d. for 5 percentage points (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 reasonable? Are there any unexplained costs? (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. For the purposes of this review, the applicant must demonstrate how they will interact with end users to ensure that collaboration is maximized between PIs and end users and that the research results are optimized for utility by end users. (5 percent)

B. Review and Selection Process

An 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 submit a timely 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 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.
 - f. Inclusion of underrepresented and/or underserved communities.
3. Whether this project duplicates other projects funded or considered for funding by NOAA or other Federal agencies.
 4. Program priorities and policy factors. Refer to section 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 applications will begin upon receipt. Applicants may be notified of award or declination by September 2024, and applicants should use a start date of September 1, 2024.

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.

PRE-AWARD COSTS. Per 2 CFR 200.458, NOAA authorizes award recipients to expend pre-award costs up to 90 days before the period of performance start date at the applicant's own risk without approval from NOAA and in accordance with the applicant's internal policies and procedures. Such costs are allowable only to the extent that they would have been allowable if incurred after the date of the Federal award. This does not include direct proposal costs (as defined at 2 CFR 200.460).

In no event will NOAA or the Department of Commerce be responsible for direct proposal preparation costs. Pre-award costs will be a portion of, not in addition to, the approved total budget of the award. Pre-award costs expended more than 90 days prior to the period of performance start date require approval from the Grants Officer. This does not change the period of performance start date.

GRANTS OFFICER SIGNATURE. Proposals submitted in response to this solicitation are not considered awards until the Grants Officer has signed the grant or cooperative agreement. Only Grants Officers can bind the Government to the expenditure of funds. The Grants Officer's digital signature constitutes an obligation of funds by the federal government and formal approval of the award.

LIMITATION OF LIABILITY. Funding for programs listed in this notice is contingent upon the availability of funds. Applicants are hereby given notice that funds may not have been appropriated yet for the programs listed in this notice. Publication of this announcement does not oblige NOAA to award any specific project or to obligate any available funds.

B. Administrative and National Policy Requirements

1. DOC 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 Pre-Award Notice (<https://www.federalregister.gov/documents/2014/12/30/2014-30297/departments-of-commerce-pre-award-notification-requirements-for-grants-and-cooperative-agreements>).

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 Uniform Guidance (<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>.

4. 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 NOAA Administrative Terms (www.noaa.gov/sites/default/files/legacy/document/2021/Mar/Administrative%20Standard%20Award%20Conditions%20for%20NOAA%20Financial%20Assistance%20Awards%2002.18.2021.pdf).

These terms may be updated by the time of award. 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.

5. 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. NOAA or DOC are not responsible for direct costs of proposal preparation. Publication of this Announcement does not oblige NOAA to award any specific project or to obligate any available funds.

6. 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 C.F.R. Parts 1500-1508), 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 aimed at protecting human health, the environment, natural resources, and cultural resources.

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. 200.206. 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.

8. 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, Asian American and Native American Pacific Islander-Serving Institutions, and institutions that work in underserved communities.

9. 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 NOAA Grants Officer under a SAC requiring the recipient to submit required permits and approvals.

10. 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 financial 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.

11. Scientific Integrity

NCCOS/CRP 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>.

12. Research Terms and Conditions

For awards designated on the CD-450 as Research, the Commerce Terms, and the Federal-wide Research Terms and Conditions (Research Terms) as implemented by the Department of Commerce, currently, at <https://www.nsf.gov/awards/managing/rtc.jsp>, both apply to the award. The Commerce Terms and the Research Terms are generally intended to harmonize with each other; however, where the Commerce Terms and the Research Terms differ in a Research award, the Research Terms prevail, unless otherwise indicated in a specific award condition.

13. 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.

More information can be found on NOAA's Data Management Procedures at:
https://nosc.noaa.gov/EDMC/documents/Data_Sharing_Directive_v3.0_remediated.pdf

and at NAO 212-15 Management of Environmental Data and Information:

<https://www.noaa.gov/organization/administration/nao-212-15-management-of-environmental-data-and-information>

14. NOAA Sexual Assault and Sexual Harassment Prevention and Response Policy

NOAA requires organizations receiving federal assistance to report findings of sexual harassment, or any other kind of harassment, regarding a Principal Investigator (PI), co-PI, or any other key personnel in the award. NOAA expects all financial assistance recipients to establish and maintain

clear and unambiguous standards of behavior to ensure harassment free workplaces wherever NOAA grant or cooperative agreement work is conducted, including notification pathways for all personnel, including students, on the awards. This expectation includes activities at all on- and offsite facilities and during conferences and workshops. All such settings should have accessible and evident means for reporting violations and recipients should exercise due diligence with timely investigations of allegations and corrective actions.

For more information, please visit: <https://www.noaa.gov/organization/acquisition-grants/noaa-workplace-harassment-training-for-contractors-and-financial>.

15. 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 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. The NOAA contact for indirect or facilities and administrative costs is:

Raishan Adams,
Grants Officer, NOAA Grants Management Division, 1325 East West Highway, 9th
Floor, Silver Spring, MD 20910, or raishan.adams@noaa.gov.

16. Review and Evaluation

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 the Department of Commerce and external program evaluators. In accordance with §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.

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. 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 Sub-award 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 this 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, and/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 the 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 and OAP have held a 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.

3. Technical recommendations: NCCOS/CRP 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: Brittany King, SEAHAB Program Manager, NCCOS/CRP,
(301) 941-7968, brittany.king@noaa.gov
Grants Administration Information: Laura Golden, NCCOS Business Support Branch,
laurie.golden@noaa.gov

VIII. Other Information

A. 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. Budget Narrative (One for the lead institution and each subaward/subcontract).
11. CD-511
12. SF-424B
13. SF-424A (One for the lead institution and each subaward/subcontract)
14. Alphabetized Collaborator List (One Excel spreadsheet for all)

B. Additional Documentation (if applicable)

1. Indirect Cost Rate Agreement
2. Signed Approval from subaward/subcontractor institutes
3. Disclosure of Lobbying Activities Form (SF-LLL)