FY2021 Marine Debris Research

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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: FY2021 Marine Debris Research

Announcement Type: Initial

Funding Opportunity Number: NOAA-NOS-ORR-2021-2006620

Catalog of Federal Domestic Assistance (CFDA) Number: 11.999, Marine Debris Program

Dates: ATTENTION: The FY2021 Marine Debris Research competition will have a pre-proposal requirement (hereafter described as Letter of Intent; LOI). Please note the competition's early submission deadline for this requirement.

This funding opportunity requires a Letter of Intent to be submitted for competitive review before a full proposal can be submitted. LOIs must be received via email as an attachment (to grants.marinedebris@noaa.gov) no later than 11:59 p.m. Eastern Time, November 5, 2020. If invited per the instructions in this announcement, full proposals must then be submitted through and validated by Grants.gov on or before 11:59 p.m. Eastern Time, February 8, 2021. Due to limited staffing of federal offices due to the ongoing pandemic, hardcopy LOIs or full applications will not be accepted.

Funding Opportunity Description: The NOAA Marine Debris Program (MDP), authorized in the Marine Debris Act (33 U.S.C. 1951-1958), provides funding to support eligible organizations to conduct research directly related to marine debris through field, laboratory, and modeling experiments. NOAA MDP invites applications for research that investigates and identifies the critical input pathways for marine debris introduction into the coastal zone (shoreline or nearshore), including evaluation of appropriate simultaneous pathways of riverine transport downstream, surface runoff, stormwater discharge, and wind-driven transport, and degradation and fragmentation of debris during transport. Projects should be original, hypothesis-driven projects that have not previously been addressed to scientific standards. Successful proposals through this solicitation will be funded through cooperative agreements. Funding of up to $2,000,000 is expected to be available for Marine Debris Research grants in Fiscal Year 2021 (FY21). Typical awards will range from $150,000 - $300,000. Funding for this grant competition comes through the NOAA Marine Debris Program as annual or supplemental appropriations to the Office of Response and Restoration, National Ocean Service.

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

Marine debris is defined as "any persistent solid material that is manufactured or processed and directly or indirectly, intentionally or unintentionally, disposed of or abandoned into the marine environment or the Great Lakes" (15 C.F.R. § 909.1). Marine debris can include land-based solid waste items such as plastic bags, cigarette butts, foam take-out containers, or balloons, as well as ocean-based items such as derelict fishing gear and abandoned vessels. Marine debris is primarily the result of human actions such as ineffective or improper waste management, dumping and littering, or storm water runoff. Fishing gear may be lost from storms or accidents and become marine debris. There are many adverse impacts from marine debris, including wildlife injury and death from entanglement or ingestion, exposure to toxic chemicals which attach to or are in plastics, habitat destruction, vessel damage, and economic loss to tourism, fisheries and maritime activities.

The NOAA Marine Debris Program (MDP), a division of the Office of Response and Restoration, leads national efforts to address marine debris. The mission of the NOAA MDP is to investigate and prevent the adverse impacts of marine debris. A principal objective of the NOAA MDP in carrying out this mission is to provide financial and technical assistance to organizations with the expertise to successfully develop and execute marine debris research projects that will improve our understanding of marine debris impacts. This includes evaluating the input pathways for marine debris introduction into the coastal zone (shoreline or nearshore) and degradation and fragmentation of debris during transport.

A second objective of the NOAA MDP is to promote scientific application of marine debris research results through collaboration with diverse entities and groups. These include partnerships with public and nonprofit organizations, citizen and watershed groups, anglers, boaters, industry (e.g. commercial and recreational fishing industries, aquaculture industry, fishing gear manufacturers, other marine industries, and plastic and waste management industries), corporations and businesses, youth groups, students, landowners, academics, and local and state government agencies. For this solicitation, consideration of local and state government natural resource and/or waste management objectives with respect to marine debris issues is encouraged as is the communication and dissemination of research findings to relevant industry and management agencies.

The priorities for this opportunity described below support NOAA's Mission to protect,

restore, and manage the use of coastal and ocean resources through ecosystem-based management. This opportunity supports NOAA's commitment to conduct science that benefits living marine resources and navigation safety, as well as NOAA's mission to understand and predict changes in the Earth’s environment and conserve and manage coastal and marine resources to meet our nation’s economic, social, and environmental needs. Additionally, the priorities of this opportunity also address the 2021-2025 MDP Strategic Plan research goal of supporting the scientific community to improve global understanding of marine debris. At the time of publication of this announcement, the 2021-2025 MDP Strategic Plan is currently under development; MDP’s most current Strategic Plan documents can be found at https://marinedebris.noaa.gov/who-we-are.

B. Program Priorities

The overarching goal of this funding opportunity is to advance the state of marine debris science by funding hypothesis-driven research projects in order to enhance natural resource and/or waste management objectives. This goal will be achieved through rigorous, scientific inquiry of the research priorities described in this section.

The highest program priority is for research that investigates and identifies the critical input pathways (in your study area) for marine debris introduction into the coastal zone (shoreline or nearshore), including evaluation of appropriate simultaneous pathways of riverine transport downstream, surface runoff, stormwater discharge, and wind-driven transport. Secondary to the pathways, fate and transport priority is a complementary research track that investigates the fragmentation and degradation of marine debris and the effect that fragmentation and degradation have on fate and transport. Here, fragmentation is defined as a change in particle size or mass often resulting from abrasion and wave action but also degradation. Degradation is the chemical breakdown of the polymers with consequent change in particle appearance and physical properties, material properties, and loss of molecular weight which mainly occurs via solar UV-radiation and photo-oxidation reactions.

The following sections describe the research priority for this grant competition in more detail.

Understanding the transport and transformations of marine debris along various pathways is essential for managing this global issue. Rivers and tributaries serve as major transport pathways for all sizes of plastic debris into the ocean and Laurentian Great Lakes with global estimates varying between 0.4–2.75 million tonnes of plastic per year (Baldwin et al. 2016, Lebreton et al. 2017, Schmidt et al. 2017, 2018). Stormwater systems and direct deposition by beachgoers also serve as significant transport pathways of marine debris to the coastal zone, with greater concentrations of debris near stormwater sources and on beaches that are

more easily accessed (Willis et al. 2017). Even so, very few studies have examined the relative contributions of various transport pathways to coastal zone marine debris (but see Willis et al. 2017) and few studies have addressed marine debris types beyond plastic. Further complicating the issue is a lack of understanding regarding how biofouling and the physical properties of various types of marine debris affect its fate and transport and lead to variable fragmentation and degradation processes. There is scant literature on plastic fragmentation and degradation rates under various environmental conditions (review by Chamas et al. 2020), and even less so for rates as debris moves along transport pathways (but see Williams and Simmons 1996). As illustrated above, a critical data gap remains for contributions of marine debris from various sources and pathways and the corresponding fate, transformation, and transport of this debris across environmental compartments and debris size classes which would inform a mass balance equation of marine debris inputs and sinks in the environment (Law 2017, Strafella and Gomiero 2018). Of particular concern are larger items (> 5mm) found floating on the surface of rivers and in stormwater which may fragment and degrade during transport processes and could be intercepted before finding their way to coastal environments (Kataoka and Nihei 2020).To begin addressing this data gap, a holistic approach should be employed to analyze debris contributions from across all size distributions and material types from as many sources and known pathways as possible. Such studies will help us to better quantify the extent of the issue and evaluate management options to alleviate marine debris upstream and ultimately, at the source. A reference list for the citations mentioned above can be found here: https://marinedebris.noaa.gov/proposal-submission-guidance-applicants

This competition calls for research that will advance our understanding of the fate and transport pathways of marine debris and the variable processes of degradation and fragmentation that may occur during transport. Projects that consider both aspects of this priority (see A & B below), will receive higher consideration during proposal evaluation.

A. PATHWAYS, FATE, AND TRANSPORT OF MARINE DEBRIS FROM UPSTREAM TO MARINE AND FRESHWATER COASTAL ZONES:

Fate and transport proposals should consider the following:

a. Research should characterize all types of marine debris material present across the spectrum of size classes observed in the study location (e.g., not just plastic or microplastic). While microplastic-specific proposals will be considered, our preference is for projects that cover all sizes of debris, which will provide a more holistic understanding of the issue, and corresponding evaluation of management options.

b. Studies will likely be a combination of field sampling and observations, mesocosm experiments, laboratory experiments and/or modeling and will provide direct quantitative measurements of the individual contributions of said pathways in the hopes of guiding management action. Studies should clearly address the following:

i. identification of the transport pathways under consideration (e.g., river, stormwater outfall or discharge points, runoff, treated wastewater) and when possible, source identification (e.g., street littering, illegal dumping, specific points of leakage, etc.)

ii. estimation of marine debris loadings from individual pathways to the coastal zone

iii. documentation of the distribution of size classes (from micro to mega) and material type (i.e., not only plastic) being transported

iv. amount of partitioning (if any) across the pathway (i.e., surface, midwater, sediments) and contribution of biotic activity (if any) to this partitioning

c. Although studies of fate and transport of marine debris at a global scale will be considered, priority will be given to those studies working within a regional or local context (i.e., a defined watershed, local water management district). Applications should provide justification of the locality selection.

d. If shoreline monitoring will be a component of the study, priority will be given to those projects that use MDMAP standing stock monitoring protocols (https://marinedebris.noaa.gov/research/marine-debris-monitoring-and-assessment-project).

e. Priority will be given to those projects that link the proposed work to a specific management plan, management objective (e.g., source reduction, trash capture, etc.) or if collaboration with local policy makers is pursued. Letters of support from management agencies are helpful in demonstrating these linkages and overall support for the project.

B. FRAGMENTATION AND DEGRADATION

This secondary research track is intended to be complementary to the pathways, fate and transport priority and not a stand alone priority. Fragmentation and degradation work should consider the following:

a. Research should characterize all types of marine debris material present across the

spectrum of size classes observed in that location (e.g., not just plastic or microplastic). While microplastic-specific proposals will be considered, our preference is for projects that cover all sizes of debris, which will provide a more holistic understanding of the issue, and corresponding evaluation of management options.

b. Studies will likely be a combination of field sampling and observations, mesocosm experiments, laboratory experiments and/or modeling and will provide direct quantitative measurements of degradation or fragmentation rates during transport in the hopes of guiding management action. Studies should clearly identify the following:

i. mechanisms, processes and timescales of fragmentation (if any) during transport (mega to macro to micro)

ii. how biotic activity, photodegradation, temperature and mechanical weathering operate collectively to fragment debris during transport

c. Priority will be given to those projects that link the proposed work to a specific management plan, management objective (e.g., source reduction, trash capture, etc.), or if collaboration with local policy makers is pursued. Letters of support from management agencies are helpful in demonstrating these linkages and overall support for the project.

Applicants should keep in mind the need for the project to answer discrete, well-defined and articulated research questions about the proposal's chosen priority area(s). Successful applicants will be those with clearly defined goals, well-articulated research questions and hypotheses, relevant and established methods to fulfill hypothesis-testing requirements including necessary statistical analyses, and thorough data analysis, including assessment of results in relation to the current scientific literature and broader impacts. All proposals should provide a rationale for the sources, pathways, and geographic region of interest. Proposals are encouraged to involve collaboration among research sectors (e.g., academia, non-governmental organizations, and industry), and engagement with local or state natural resource and/or waste management agencies.

All proposed research projects will be evaluated based on the criteria outlined in Section V.A. Projects that consider the pathways, fate and transport of all marine debris material types (not just plastic) and sizes (not just microplastic) will receive higher priority.

Projects that solely characterize the distribution of marine debris in the environment are not a focus of this grant competition and will receive lower priority. Projects with a primary emphasis solely on microplastic or nanoplastic are not a focus of this grant competition and

will receive lower priority. Projects with a primary emphasis on the development of methodologies for sampling marine debris in the environment are not a focus of this grant competition and will receive lower priority. Because funding is limited, proposals requesting support for large equipment purchases, to expand an organization's day-to-day administrative or program management activities or to support strictly administration, salaries, overhead, and travel without being part of a specific project will be a low priority. If a project requires funding for large equipment purchases, the application should provide a lease versus purchase justification, identify how the overall project will continue into the future and how any equipment operation and maintenance costs will be paid for beyond the award period. Projects that duplicate those that the NOAA MDP currently supports or those that have been funded by NOAA, partner organizations, and/or other federal agencies may not receive priority.

Applications addressing other types of pollution not fitting the definition of marine debris provided in Section I.A. are not priorities for this solicitation and may not be considered.

The NOAA MDP may prioritize projects implementing activities that fit into any existing national or regional programs, state/local priorities, or strategic plans to address marine debris (e.g. the Great Lakes Marine Debris Action Plan, the Virginia Marine Debris Reduction Plan, the Hawai'i Marine Debris Action Plan, the Oregon Marine Debris Action Plan, the Florida Marine Debris Reduction Plan, the California Ocean Litter Prevention Strategy, the Gulf of Mexico Alliance Regional Action Plan, the Southeast Marine Debris Action Plan, the Gulf of Maine Marine Debris Action Plan, the Washington Marine Debris Action Plan, the National Estuary Program or NOAA Habitat Focus Area sites, etc.) and describe how they do so. Regional plans can be found on the MDP website at https://marinedebris.noaa.gov/emergency-response-guides-and-regional-action-plans.

Applicants should also note that the following activities, in general, will not be considered for use of federal dollars under project awards: (1) activities that constitute legally required mitigation for the adverse effects of an activity regulated or otherwise governed by local, state, or federal law; (2) activities that constitute restoration for natural resource damages under federal, state, or local law; and (3) activities that are required by a separate consent decree, court order, statute, or regulation.

C. Program Authority

Marine Debris Act (33 U.S.C. 1951-1958)

II. Award Information

A. Funding Availability

Funding of up to $2,000,000 is expected to be available for this grant solicitation. The actual funding amount available is contingent upon the availability of Fiscal Year 2021 appropriations. The NOAA MDP does not plan to fund proposals with a total project budget of less than $75,000 or more than $350,000 under this solicitation. Typical project awards range from $150,000 to $300,000.

The NOAA MDP anticipates that between 2 and 5 awards will be made under this solicitation. The exact amount of funds to be awarded and the number of awards made will be at the discretion of NOAA following pre-award negotiations with those applicants recommended for funding. At NOAA's discretion, additional funding may be awarded above the $350,000 limit to allow for effective completion of proposed project objectives. NOAA may request that any highly ranked applications from the same applicant combine all or parts of its proposals into one award. Publication of this opportunity does not obligate NOAA to award any specific project or obligate all or any part of available program funds. Awards may include funding from other programs or agencies. There is no guarantee that sufficient funds will be available to make awards for any or all proposals. The number of awards to be made under this solicitation will depend on the number of eligible applications received, the amount of funding requested by recommended applicants, the merit and ranking of the proposals, and the amount of funds made available to the NOAA MDP by Congress.

B. Project/Award Period

Applications should cover a project period of performance of up to three years in duration. The earliest anticipated start date for awards will be September 1, 2021. Applicants should consider this date when developing plans for initiating proposed project activities. Applicants selected to receive funding may be asked to modify the project start date to accommodate any delays in federal appropriations. The project start date should fall on the first day of any given month and the project end date should end on the last day of any given month. Applications for renewal or supplementation of previously-awarded NOAA MDP projects are allowed, however any proposal to continue work on an existing project must submit an application as described in this announcement and will be subject to the competitive process and will not receive preferential treatment. In some cases NOAA may fund a project with incremental funding, usually in the form of a multi-year award. If incremental or multi-year funding is awarded, in which NOAA only obligates funds initially for the first phase of a project, NOAA has no obligation to provide any additional prospective funding in connection with that award in subsequent time periods; additional funding is contingent upon satisfactory performance, continued relevance to program mission and priorities, and the availability of funds.

C. Type of Funding Instrument

Selected applications will be funded through cooperative agreements since NOAA staff will be substantially involved in aspects of the project. Substantial involvement may include, but is not limited to, activities such as engagement with recipient on environmental compliance requirements, hands-on technical collaboration or permitting assistance, support in developing and/or reviewing study approach, methodologies and conceptual models, tracking project progress through site visits, regular conference calls, and progress report evaluation and milestone approval, developing performance measures to assess project outcomes, reviewing manuscript drafts, and support in developing and disseminating public-facing communication materials or events to highlight marine debris research activities.

Marine debris research activities funded through this competition may have long-term planning goals and objectives common to the programmatic needs of both NOAA and the recipients. As such, NOAA may seek to maintain a long-term partnership with recipients by establishing cooperative agreements in relevant situations as "institutional awards". If a cooperative agreement is established as an institutional award, the initial cooperative agreement will be established for no more than three years and NOAA may issue new cooperative agreements to the recipient for similar or related activities through a non-competitive selection process.

III. Eligibility Information

A. Eligible Applicants

As outlined in the Marine Debris Act, eligible applicants are state, local, tribal, and territory governments whose activities affect research or regulation of marine debris and any institution of higher education, nonprofit organization, or commercial (for-profit) organization with expertise in a field related to marine debris. Applications from federal agencies or employees of federal agencies will not be considered. Interested federal agencies may collaborate with eligible applicants but may not receive funds through this competition.

All projects must take place within the United States or territories or their adjacent waterways. Foreign organizations and foreign public entities are not eligible to apply as the primary applicant but can be involved as project partners.

NOAA is strongly committed to broadening the participation of veterans, minority-serving institutions, and entities that work in underserved areas. The NOAA MDP encourages proposals from, or involving any of the above types of institutions.

Applications that have been submitted to other NOAA grant programs or as part of another NOAA grant may be considered under this solicitation. Applicants should indicate if the proposal has been submitted elsewhere for funding as described in the Budget Justification referenced in Section IV.B. of this announcement.

B. Cost Sharing or Matching Requirement

The Marine Debris Act (33 U.S.C. § 1951-58) requires NOAA MDP's grant programs to leverage their federal grant funding with non-federal cost share or match. Applicants often satisfy this requirement by developing and including public and private partnerships, as well as cash and third party in-kind contributions, to accomplish the overall project objectives. Applicants must provide a minimum 1:1 ratio of non-federal matching contributions to NOAA funds requested to conduct the proposed project. In addition to required cost sharing, the NOAA MDP encourages applicants to leverage additional investment where possible.

"Cost share" or "match" is defined by 2 C.F.R. 200.29 as "the portion of project costs not paid by federal funds (unless otherwise authorized by federal statute)." Any shared costs or matching funds and all contributions, including cash and third party in-kind contributions, will be accepted as part of an applicant's cost sharing or matching when the contributions meet the criteria listed in 2 C.F.R. 200.306. Matching funds may come from a variety of public and private sources and may include goods and services from the applicant or third parties (e.g., private boat use, existing equipment, volunteer labor, etc.). In addition, applicants are permitted to combine contributions for allowable costs from non-federal partners when they meet the criteria in Section 200.306, such as not being contributed as match for other projects, and being available within the project period stated in the application. Section 200.306 also describes the valuations to attribute to the matching contributions. Federal contributions cannot be used as match without a specific legal authority, but can be described in the budget narrative to demonstrate additional leverage or partnership. Applicants may also choose to designate part or all of their federally-negotiated indirect costs as match. Refer to Section IV.F.2. "Indirect Costs".

If the match requirement cannot be met, the Marine Debris Act allows the NOAA Administrator to waive all or part of the matching requirement if the applicant can demonstrate the following:

1) no reasonable means are available through which applicants can meet the matching requirement, and
2) the probable benefit of such a project outweighs the public interest in such matching requirements.

Applicants wishing to waive all or part of this competition’s match requirement should request a waiver in the Budget Narrative section of the application package being submitted. Match waiver requests must justify the need for the waiver, describe attempts to obtain sources of matching funds, and explain how the benefit of the project outweighs the public interest in providing match, along with any other extenuating circumstances preventing the incorporation or local availability of matching contributions. In certain cases, if circumstances warrant, match waivers may also be negotiated post-award at NOAA’s discretion.
In accordance with 48 U.S.C. 1469a and the Marine Debris Act, 33 U.S.C. § 1951-58, NOAA has determined that any requirement for local matching funds less than $200,000 (including in-kind contributions) to be provided by territorial applicants from American Samoa, Guam, the U.S. Virgin Islands, and the Commonwealth of the Northern Mariana Islands shall be waived, notwithstanding any other provision of law. Any matching funds otherwise required by law to be provided by government entities of the above-mentioned insular areas may be waived at the discretion of NOAA.
Applicants should note that cost sharing is an evaluation criterion (See Section V.A. "Evaluation Criteria") for this funding opportunity. As such, if available, the inclusion of matching contributions is encouraged. Please note within the proposal whether cash or third party in-kind contributions have been secured at the time of application, or if such contributions are still pending.

Applicants whose proposals are selected for funding will be bound by the cost share amount reflected in the award document signed by the NOAA Grants Officer. Successful applicants should carefully document cost sharing, including but not limited to, the estimated value of services and/or resources provided by the applicant’s organization or a third party (e.g., real property, equipment, supplies and expendable goods) as well as facilities and administration costs. Letters of commitment for any secured matching contributions expected for an award should be submitted as an attachment to the application.

The Marine Debris Act also allows the NOAA Administrator to authorize, as appropriate, the non-federal share of the cost of a project to include money paid pursuant to, or the value of any in-kind service performed under, an administrative order on consent or judicial consent decree that will remove or prevent marine debris. See 33 USC 1952(d)(3).

C. Other Criteria that Affect Eligibility

For activities conducted under an award funded through this competition, recipients of financial assistance from the NOAA MDP involved in the collection, assessment, oversight, or interpretation of scientific information are required to adhere, to the best of their ability, to the principles, policies and codes of conduct identified in NOAA’s Policy on Scientific

Integrity (NOAA Administrative Order 202-735D), which is available at: http://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_202/202-735-D.html

The intent of the policy is to strengthen widespread confidence (from scientists, decision-makers, and the general public) in the quality, validity, and reliability of NOAA-funded science. Further information on this policy can be found at: https://www.noaa.gov/organization/administration/nao-202-735d-scientific-integrity.

IV. Application and Submission Information

A. Address to Request Application Package

Complete application packages, including required federal forms, general instructions, and supplementary instructions specific to the Fiscal Year 2021 Marine Debris Research grants competition, can be found on Grants.gov (http://www.grants.gov). If the application forms and instructions cannot be downloaded from Grants.gov, please contact Tom Barry (tom.barry@noaa.gov, 202-870-2863).

B. Content and Form of Application

LETTER OF INTENT

Applicants must submit a Letter of Intent (LOI) and receive an invitation from the NOAA MDP before submitting a full proposal. LOIs must be submitted as an email attachment to grants.marinedebris@noaa.gov by 11:59 pm Eastern Time on November 5, 2020 (see Section IV.D. below). Please put "FY2021 Marine Debris Research Letter of Intent (LOI)" in the email subject heading. Do not direct questions to this email address (see Section VII below). An email confirmation will be sent indicating successful submission of the LOI. If no confirmation email is received, that is an indication that the LOI submission was not successful and will not be reviewed. In such cases please contact NOAA MDP to resolve the issue. For this reason, it is highly recommended that LOIs are submitted early.

Applicants must follow the LOI and full application requirements stated in the funding announcement, or they may not be considered. The LOI submission is a critical step to determine if proposed projects are well-suited for this specific competition. The goal of the LOI is to streamline the proposal review process by inviting full applications only from those applicants whose projects are most likely to support NOAA's implementation of the Marine Debris Act through research focused on the outlined priorities, and for NOAA MDP to be able to provide feedback and guidance on invited application ideas.

The LOI must be no more than two (2) pages in length. It should be single-spaced, using 11- or 12-point Times New Roman or Arial font, with one-inch margins, and should provide a concise description of the proposed work and its relevance to the competition's priorities. A third page may be submitted showing only project site maps, diagrams and/or photographs. If the LOI is incomplete, does not meet the guidelines above, or is submitted late, it may not be considered. Those applicants invited to submit a full proposal will receive an email notification containing feedback and full-proposal submission instructions from NOAA MDP. NOAA MDP may limit the number of full applications invited in order to manage the review workload.

The LOI must contain the following information:

A. Project Title
B. Lead PI and confirmed Co-PI names, department(s), institution(s), phone number(s), and email address(es). The Lead PI must be listed as the point of contact, not the institution's sponsored research representative. Also list additional confirmed participating organizations. If there is participation from veterans, minority-serving institutions, and/or entities that work in underserved areas, please indicate that here.
C. The submitting institution's name.
D. A project synopsis that describes the proposed research activities and contains the following:
   a. Statement of need (outline the conceptual advancements of the research as well as expected significance of the project)
   b. State the hypothesis (or hypotheses) to be tested (or specific research questions to be asked)
   c. Methods: Summarize the proposed research design/approach, including study location(s), and plans for data analysis
   d. Explain how results will be useful to the scientific community at large
E. Summarize how the proposed work links to a specific management plan or management objective (e.g., waste reduction or trash capture), or describe how collaboration with local policy makers will transpire
F. Brief project timeline
G. Approximate cost estimate (total, not itemized)
   a. Federal ask
   b. Anticipated non-Federal match

FULL PROPOSAL (only if invited)

Applicants may only submit a full proposal if invited to do so by NOAA. Applicants are required to apply through the Grants.gov website. No hardcopy applications will be accepted due to limited staff presence in federal offices due to the ongoing pandemic.
Please visit http://marinedebris.noaa.gov/proposal-submission-guidance-applicants for helpful information on developing and submitting proposal documents/information.

Applicants are also encouraged to minimize the number of files uploaded to an application by combining the proposal's files as much as possible. Adobe PDF is the preferred file format for all application attachments.

Applications must adhere to page limits and any pages that exceed the limit for each section may not be reviewed. Files that cannot be opened or downloaded will not be reviewed. Full proposals will not be accepted if sent via fax or email.
Application documents must use 11- or 12-pt font on an 8.5" x 11" page size.

Applications should be sufficiently detailed in accordance with the guidelines and information requirements listed below and elsewhere in this announcement, and proposed activities should be able to be completed within the proposed period of performance. Each full proposal application must contain the following required federal application forms (available from Grants.gov) and adhere to page limits indicated for each category, unless otherwise noted below:

- SF-424 - Application for Federal Assistance
- SF-424A - Budget Information, Non-construction Programs
- SF-424B - Assurances, Non-construction Programs
- CD-511 - Certifications Regarding Lobbying
- SF-LLL Disclosure of Lobbying Activities: (if applicable)
- Cover Sheet (described below, 1 page or less);
- Project Description (described below, 15 pages or less);
- Data Sharing Plan (described below, 2 pages or less);
- Budget Narrative (described below, 4 pages or less, and include a budget table);
- Curriculum vitae or résumé of each of the primary project personnel;
- Maps with site location(s) highlighted, where applicable;
- Letter(s) documenting partner and management support; and
- Indirect cost rate agreement, if applicable (no page limit); and
- Other relevant attachments important to the overall understanding and evaluation of the proposed project, such as summaries of regional marine debris action plans, or documentation about any permits necessary to perform the project (20 pages or less).

The following sections describe the proposal’s content requirements:

1) Cover Sheet (1 page or less):

a) Project Title;
b) Principal Investigator and Co-PI Information: Name, Organizational/ Institutional affiliation, Physical Address, Telephone Number and Email Address.
c) Project Overview: Briefly describe the objectives of the research project, methods to be utilized and potential for advancing the state of marine debris science, and broader impacts/benefits to marine resources and society.
d) Project Location: Please indicate the State or general geographic area where the project will take place.
e) Budget and Duration: approximate Federal funds requested, non-Federal match anticipated, and project duration (in months).

2) Project Description (15 pages or less)

When writing the Project Description, applicants should understand the components of the evaluation criteria (see Section V. A. "Evaluation Criteria" in this announcement), as they explain how proposals will be scored for the application to be competitive. The Project Description may not exceed 15 pages. Figures, tables, and other visual materials such as conceptual models and photographs are included in the 15-page limitation. URLs that provide supporting information should not be used. The Project Description should clearly describe the work to be undertaken and must include:

a) Introduction: A summary of the current understanding of the state of marine debris science (as it relates to the research priority) that establishes the context of the work being proposed. Please discuss how the proposed work relates to the current state of marine debris knowledge, the scientific significance, as well as how the project will make broader contributions to the field. Include the transport pathway(s) to be addressed (i.e., riverine, storm water) and whether fragmentation or degradation will be examined, as well as a justification for the chosen study area/region of interest.

b) Hypothesis or Research Question: A clearly stated hypothesis or research question that directly addresses natural resource and/or waste management objectives in the specified region.

c) Methods and Study Area: An outline of the experimental or sampling design including

a clear, concise outline of methods, procedures, and activities to be performed as well as a description of the study site(s), and the qualitative or statistical analyses to be used. For the pathways, fate and transport priority, please describe how the watershed or study region is delineated and why it was chosen. Also describe the specific approach that will be implemented to evaluate and enumerate the contribution of marine debris from the watershed to the nearshore or coastal environment. For the fragmentation and degradation priority, please describe the primary mechanisms for fragmentation and degradation in your study area and the specific approach for evaluating and enumerating the rate of fragmentation and degradation occurring during transport to the nearshore or coastal environment.

d) Expected Results: Describe potential outcome measures that will be used to track the success of the project. Research outcome measures may include (but are not limited to) the following:

i. A description of how the proposed project will advance knowledge in the field of marine debris particularly natural resource and/or waste management decisions;

ii. Potential benefits the research may have on living marine resources, habitats, and society;

iii. Anticipated submission of a manuscript(s) to a peer-reviewed, scientific journal;

iv. Identification of appropriate management/regulatory actions to be taken in response to the identified pathways of marine debris;

v. Lessons learned - identification of critical themes that may (or may not) be exportable to other situations; and

vi. Communication strategy for informing appropriate stakeholders, including presentations at appropriate scientific and management venues, engagement with non-scientific communities, etc.

e) References Cited: This section should include all references to source materials cited within the Introduction and Methods sections. Please follow any accepted scholarly format for citations that includes authors' names, year of publication, article and journal (or chapter and book) title, volume number, and page numbers. The Reference Cited section is not included in the 15-page limit but should include bibliographic references only (i.e., no additional parenthetical information should be included).

f) Project Implementation Timeline with Milestones: Describe the anticipated project duration (not to exceed 36 months) and the timeline and milestones for completing project objectives.

g) Organizational Structure and Project Staff: Describe the organizational structure of the applicant, and the qualifications of project staff. Include a CV for all key personnel. If applicable, describe any previous NOAA involvement in and/or support for the project and include name(s) of any relevant NOAA staff. If there is participation from veterans, minority-serving institutions, and/or entities that work in underserved areas, please indicate that here.

3) Data Management Plan (2 pages)

Proposals submitted in response to this announcement must include a Data Management Plan of up to two pages describing how environmental data and information collected or created under a NOAA Marine Debris Program cooperative agreement will be made discoverable by and accessible to the general public, if requested. Such data must be made available in a timely fashion (typically within two years), and should be free of charge or at no more than the cost of reproduction.

The Data Management Plan should be aligned with the Data Management Guidance provided by NOAA in Section VI. B. 9. 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 and the medium by which the data will be shared; approximate total volume of data to be collected; and prior experience in making such data accessible. NOAA MDP manages and maintains a public-facing Clearinghouse (https://clearinghouse.marinedebris.noaa.gov/) and is able to ensure grantee compliance with Data Management requirements by hosting project data on that platform.
A sample Data Management Plan may be found at: http://marinedebris.noaa.gov/proposal-submission-guidance-applicants

4) Budget Justification (4 pages or less, including a budget summary table)

Applicants should follow NOAA’s Budget Narrative Guidance document to ensure the appropriate content and format is provided with the proposal. This document can be found at: https://www.noaa.gov/sites/default/files/atoms/files/gmd_budget_narrative_guidance_-

_05-24-2017_final.pdf

The Budget Justification should include both a narrative and a summary budget table that lay out and describe each line item's various costs in as much detail as is reasonable. For clarification and simplicity, the Budget Justification should be organized using the object classes in the order that they appear on the SF424A. Include detailed descriptions of all cost justifications for both federal funds and any cost sharing or matching funds (cost share or matching funds should be described in the same level of detail as the federal funds). The amounts described in the Budget Justification narrative and summary table must match the dollar amounts on all required forms. The summary budget table does not count toward the 4 page limit.

The Budget Justification narrative should also indicate if the proposal has been submitted for funding consideration elsewhere, what amount has been requested or secured from other sources, and whether the funds requested/secured are federal or non-federal. The source of any matching funds, including applicant or third party in-kind contributions, should be explained. If funding will be used to complete part of a larger project, the Budget Justification should describe the overall budget for the entire project to allow NOAA to make an informed determination of a project's readiness and cost-benefit ratio. Any funding other than the federal funds requested and proposed cost share or match should be considered additional leverage.

If sub-awards are expected to be made, describe the process that will be used to identify recipients and justification for that process.

The Budget Justification narrative should also indicate if the applicant is requesting a waiver of all match requirements, as outlined above in Section III.B. "Cost Share or Matching Requirement." As previously stated, NOAA has waived the requirement for local matching funds to the insular areas (up to $200,000) defined above in Section III.B.

NOAA assesses budgets to determine the reasonableness, necessity, and adequacy of proposed costs for accomplishing the project objectives, and performs a cost analysis to assure that costs are reasonable, allowable, and allocable in accordance with applicable federal cost principles. NOAA MDP may recommend funding only specific components of a project; as such applicants should describe the extent to which project activities can be scaled up or scaled down.

Requests for equipment (any single piece of equipment costing $5,000 or more) should be strongly tied to achieving the project's stated goals, and a comparison with rental costs

should be provided to justify the need to purchase. In general, funding requests for equipment purchases such as vehicles, boats, and similar items will be a low priority. Publication costs (i.e., journal page charges, poster printing) for communicating research results are allowed.
If applying for a Multi-Year award (2 to 3 years), the application must contain a line item budget (SF-424A) and corresponding budget narrative for each of the funding periods anticipated.

Refer to Section IV.F.2. regarding indirect costs in the budget.

5) Other Application Submission Information

Applicants should not assume NOAA has any prior knowledge relative to the merits of the project described in the proposal. As such, proposals should be written with an appropriate level of detail. Inclusion of supplementary materials (e.g., photographs, summaries of project designs, key diagrams, copies of secured permits) are strongly encouraged and do not count toward the project narrative page limit, although supplementary materials should not exceed 20 pages. Letters of support from partners, local, state, and federal government agencies, natural resource and/or waste management agencies, industry, and Congressional representatives are helpful in demonstrating support for the project and if applicable, how project results will be applied to their management objectives. Such supplementary information should be combined and submitted as a single file in the Grants.gov application.

Participant safety is critically-important during project implementation. Proposals should demonstrate meaningful consideration for the safety of project participants during project activities. It should be noted that all funded projects will be required to have a written safety plan governing all project-related activities, especially regarding the safety and management of interns and volunteers. The safety plan should consider safety at all project sites during and after project implementation and take into account potential safety concerns for current and future uses of the project site.

If a project requires scuba diving or the use of surface-supplied air, it is the responsibility of the recipient organization to ensure that divers are qualified and trained to a level commensurate with the type and conditions of the diving activity being undertaken. The organization must describe their capacity (appropriate insurance, safety policies, etc.) to effectively oversee all proposed diving activities in the proposal. All diving activities must meet, or be specifically exempted from, OSHA guidelines. Assuming all other relevant safety conditions are satisfied, divers that are not advanced divers may perform only simple activities, such as underwater surveys and/or removal of light, non-entangling objects.

Advanced divers are divers with advanced diving training for the proposed tasks and in compliance with OSHA guidelines. Snorkeling activities are similarly restricted, in that snorkelers should complete only simple activities such as surveys and removal of light, non-entangling objects. Furthermore, it is the responsibility of the recipient to ensure that any diving activities under this award meet, at a minimum, all applicable federal, state, and local laws and regulations pertaining to the type of diving being undertaken.

Activities that should be performed only by advanced divers include but are not limited to the following:

-Using hand tools or moving or lifting heavy objects where the tools or objects weigh more than 25 pounds underwater;

-Performing underwater tasks that require substantial physical exertion;

-Using lift bags; and

-Underwater removal of potentially entangling debris, such as nets, crab or lobster pots, or fishing line.

Applicants should note, the National Environmental Policy Act (NEPA) requires NOAA to analyze a project's potential environmental impacts. Applicants therefore should provide as much detailed information as is reasonable on the project's activities. To this end, and to support NOAA's analysis, applicants should include details about site locations, species and habitat(s) to be affected, on-the-ground project activities and processes proposed, the time of year that work will take place, and any environmental concerns that may exist (e.g., the use of and/or disposal of hazardous or toxic substances, potential introduction of non-indigenous species, impacts to endangered and threatened species, impacts to coral reef systems). See Section VI.B.10 for further detail on the NEPA process and requirements for applicants.

Files uploaded to Grants.gov should not have any special characters in the filename (example: &,¿,*,%,/,#', -), and filenames should be limited to less than 50 characters.

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

To enable the use of a universal identifier and to enhance the quality of information available to the public as required by the Federal Funding Accountability and Transparency Act, 31 U.S.C. 6101 note, to the extent applicable, any proposal awarded in response to this announcement will be required to use the System for Award Management (SAM), which may be accessed online at https://www.sam.gov. Applicants are also required to use the Dun

and Bradstreet Universal Numbering System, as identified in OMB guidance published at 2 CFR Part 25.

Applicants must be registered in the System for Award Management (SAM) in order to apply via Grants.gov and to be funded by NOAA. Applicants must: (1) Be registered in the federal System for Award Management (SAM) before submitting an application; (2) provide a valid Data Universal Number System (DUNS) number on an application; and (3) 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 DUNS and SAM requirements. 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.

Applicants can receive a DUNS number at no cost by calling the dedicated toll-free DUNS Number request line at 1-866-705-5711 or online at http://fedgov.dnb.com/webform. The applicant organization's Employer Identification Number (EIN) will be needed on the application form.

Applicants should allow a minimum of several weeks to complete each of these registration processes. Registrations may need to be periodically renewed.

D. Submission Dates and Times

WE STRONGLY RECOMMEND APPLICANTS BEGIN THE APPLICATION SUBMISSION PROCESS EARLY AND SUBMIT IN ADVANCE OF THE DEADLINE. NOAA WILL NOT ACCEPT LATE SUBMISSIONS. PLEASE PLAN ACCORDINGLY. DUE TO LIMITED STAFF PRESENCE IN FEDERAL OFFICES, HARDCOPY APPLICATIONS WILL NOT BE ACCEPTED THIS YEAR.

Letters of Intent must be submitted as an email attachment to grants.marinedebris@noaa.gov by 11:59 pm Eastern Time on November 5, 2020. Please put "FY2021 Marine Debris Research Letter of Intent (LOI)" in the email subject heading. Do not direct questions to this email address; see Section VII below.

Full Proposals may only be submitted if invited by NOAA. Invited full proposals must be received and validated by Grants.gov on or before 11:59 p.m. Eastern Time, February 8, 2021.

Please keep in mind that acquiring a DUNS number, and the registration processes for SAM.gov and Grants.gov may take as long as several weeks and may impact the submission timeline (see Sections IV.C and IV.G. of this announcement).

As stated above, no hardcopy, fax or email applications will be accepted. Applicants without the ability to apply electronically should contact the program to discuss arrangements for submission.

For all applicants, adequate time must be factored into applicant schedules for delivery of the application. Volume on Grants.gov is at times extremely heavy.

E. Intergovernmental Review

Applications for federal financial assistance are subject to the provisions of Executive Order (EO) 12372, "Intergovernmental Review of Federal Programs." All applications for funding under this competition are required to complete item 19 on the SF-424 regarding clearance by the State Single Point of Contact (SPOC) established as a result of EO 12372. To find out about and comply with a State's process under EO 12372, the names, addresses, and phone numbers of participating SPOCs are listed in the Office of Management and Budget's home page at https://www.whitehouse.gov/wp-content/uploads/2019/02/SPOC-February-2019.pdf.

F. Funding Restrictions

1. Allowable Costs

Funds awarded cannot necessarily pay for all the costs that the recipient might incur in the course of carrying out the project. Generally, costs that are allowable include salaries, equipment, and supplies, as long as these are "necessary and reasonable" specifically for the purpose of the award. Currently, allowable costs are determined by reference to 2 C.F.R. 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards." All sub-awards are also subject to these federal cost principles. Award recipients are subject to 2 C.F.R. 200.317-.326 when implementing contracts under an award.

Pre-award costs are allowable only with the written approval by NOAA under 2 C.F.R. 200.458 except to the extent allowed for research awards under 2 C.F.R. 200.308(d)(4). Any pre-award costs incurred before the NOAA Grants Office provides a notice of award are at the applicant's own risk. Typically, the earliest date for receipt of awards will be September 1, 2021. Applicants should consider this award timing when developing plans for proposed

project activities.

2. Indirect Costs

The budget may include an amount for indirect costs if the applicant has an established indirect cost rate with the federal government. Indirect costs are essentially overhead costs for basic operational functions (e.g., lights, rent, water, insurance) that are incurred for common or joint objectives and therefore cannot be identified specifically within a particular project. Applicants with approved indirect cost rates may propose a portion or all of their indirect costs as match, since the valuation of such costs has already been federally-approved and documentation is readily available.

A copy of the current, approved negotiated indirect cost rate agreement with the federal government should be included with the application. If an applicant has not previously established an indirect cost rate with a Federal agency, the applicant may choose to negotiate a rate with its cognizant agency (the agency from which the applicant receives the most grant funding), or use the de minimis indirect cost rate of 10% of MTDC (as allowable under 2 C.F.R. §200.414).

If you do not have a cognizant agency, you may apply for an indirect cost rate from NOAA. The negotiation and approval of a rate is subject to the procedures required by NOAA and the Department of Commerce Standard Terms and Conditions Section B.06. The NOAA contact for indirect or facilities and administrative costs is: Lamar Revis, Grants Officer, NOAA Grants Management Division; lamar.revis@noaa.gov.

G. Other Submission Requirements

Applications must be submitted through Grants.gov (http://www.grants.gov). To use Grants.gov, applicants must have an active Grants.gov registration, a DUNS number, and be registered with SAM.gov (as described in Section IV.C). Applicants should note that it may take up to several weeks for first time users to register with each of these systems. Even if an applicant has registered with each of these systems previously, renewing, updating or reactivating accounts are required prior to proposal submission, and may take some time to complete. Grants.gov will not accept submissions if the applicant has not been authorized or if credentials are incorrect. Authorizations and credential corrections can take several days or longer. For further information please visit http://www.sam.gov. See also 2 C.F.R. 25.

Users of Grants.gov will be able to download a copy of the application package, complete it off line, and then upload and submit the application via the Grants.gov site. If an applicant has problems downloading the application forms from Grants.gov, contact Grants.gov

Customer Support at 1-800-518-4726 or support@grants.gov.

The Grants.gov validation process for a submitted application can take up to two business days to complete following submission through Grants.gov. After submission, Grants.gov will send a series of email notifications (potentially for up to two business days) indicating the application's status and whether NOAA's system has received the application. Only validated applications are sent to NOAA for review. Please plan accordingly to avoid late submissions as such submissions will be rejected.

As stated above, a Letter of Intent must be submitted as the first step for this competition. The LOI should include the information described in Section IV.B. It must be included as an email attachment to grants.marinedebris@noaa.gov by 11:59 pm Eastern Time on November 5, 2020. Please put "FY2021 Marine Debris Research Letter of Intent (LOI)" in the email subject heading.

V. Application Review Information

A. Evaluation Criteria

LETTERS OF INTENT EVALUATION CRITERIA:

Letters of Intent will be reviewed to ascertain whether the proposal has the potential to address marine debris research activities that meet the competition's priorities. By assigning a score of 0 to 10 to each criterion, NOAA MDP will assess whether the proposed approach is appropriate, focused on priority marine debris issues identified in Section I.B., and whether the LOI clearly explains how project activities will be carried out. Specifically, LOIs will be evaluated using the following criteria and parenthetical weighting:

1) The LOI effectively addresses the marine debris research priorities described in this funding opportunity. The proposed research advances the current state of marine debris knowledge about said priorities and is scientifically significant. (25%)

LOIs that clearly address both the fate and transport pathways of debris and fragmentation and degradation priorities as described in this funding opportunity, with proposed research that relates to the current state of marine debris knowledge about said priorities and is scientifically significant are likely to score higher on this criterion.

2) The LOI has clear objectives with identification of a specific research question(s) or testable hypothesis(es) that will advance the state of knowledge of marine debris on the fate and transport pathways of debris and fragmentation and degradation. The overall

method/approach is well-organized and is appropriate to addressing the project's questions with a scientifically sound experimental design and technical feasibility. The timeline for the project is reasonable. (50%)

LOIs that provide detailed and clear objectives, identify specific research question(s) or testable hypothesis(es), describe appropriate and scientifically sound methods, with reasonable project timelines are likely to score higher on this criterion.

3) The extent to which the proposed research addresses specific natural resource or waste management objectives/applications, and whether collaboration with local natural resource and/or waste managers or industry is pursued (25%).

LOIs that address specific management objectives with strong management applications are likely to score higher on this criterion.

The NOAA MDP may use the Selection Factors described in Section V.C. below during the LOI process to determine final invitations.

FULL PROPOSAL EVALUATION CRITERIA:

Technical reviewers will assign scores to proposals ranging from 0 to 100 points based on the following five standard NOAA evaluation criteria and respective points specified below. Applications that address the issues contained in these criteria are likely to be more competitive.

1) Importance and Applicability of Proposal (30 points):

This criterion ascertains whether the proposed work is relevant to the goals set out by the NOAA Marine Debris Program in this Federal Funding Opportunity. Proposals will be evaluated on the following:

- The proposal clearly addresses the marine debris research priorities as described in Section I. B. of this funding opportunity (A. pathways, fate, and transport; B. fragmentation and degradation). Proposals that effectively address both priorities will score higher on this criterion. Projects that solely characterize the distribution of marine debris in the environment are not a focus of this grant competition and will receive lower priority. Projects with a primary emphasis solely on microplastic or nanoplastic are not a focus of this grant competition and will receive lower priority. Projects with a primary emphasis on the

development of methodologies for sampling marine debris in the environment are not a focus of this grant competition and will receive lower priority. (10 points)

- The proposed research relates to the current state of marine debris knowledge and is scientifically significant. Projects should demonstrate the potential of the proposed work to advance knowledge and understanding within the field of marine debris on the topic(s) of pathways, fate, transport, fragmentation and degradation of marine debris in order to move closer toward proactive solutions. (10 points)

- The extent to which the proposed research addresses specific resource management objectives/applications, and whether collaborations are pursued. This should include letters of support from local, state, or federal government agencies, natural resource and/or waste management agencies, and/or industry that indicate how project results will be applied to their management objectives. (10 points)

2) Technical and Scientific Merit (30 points):

This criterion assesses whether the approach is technically sound, if the methods are appropriate, and whether there are clear project goals and objectives. Applications will be evaluated based on the following:

- The proposal has clear objectives with identification of a specific research question(s) or testable hypothesis(es). (15 points)

- The overall method/approach is well-organized and is appropriate to addressing the project’s questions with a scientifically sound experimental design, appropriate data analyses, and technical feasibility as described in Section IV.B.2. (10 points)

- The timeline for the project is reasonable and the proposal contains all critical/relevant design elements as described in Section IV. B. 2. (5 points)

3) Overall Qualification of Applicant (10 points):

This criterion ascertains whether the applicant has the necessary education, experience, training, facilities, and administrative resources to accomplish the project. Proposals will be evaluated on the following:

- The demonstrated ability or the potential of the applicant and associated project personnel to conduct the scope and scale of the proposed work, as indicated by the

qualifications and past experience of the Principal Investigator (PI) and any co-PIs, in designing, implementing, and effectively managing and overseeing research projects. This includes the extent to which facilities, grants management staff, and/or administrative resources available to the awardee are adequate to support and successfully manage project/grant responsibilities (8 points)

- Whether letters of support are included with the proposal, and are positive and indicate support for the project’s objectives. (2 points)

4) Project Costs (15 points):

This criterion evaluates the budget to determine if it is realistic and commensurate with the project needs and timeframe. If funds are requested for partial support of a project, the budget will be examined with respect to the overall project budget to allow an informed determination of a project’s readiness and cost-benefit ratio. Proposals will be evaluated on the following:

- The total project budget is likely to result in an effective and successful project, and is clearly linked to the applicant's stated objectives and timeframe. Applications proposing to expand an organization's day-to-day administrative activities are unlikely to obtain a high score under this criterion. (5 points)

- The overall leverage of other anticipated project funding, including cost share or match. Other than those proposals eligible for a waiver according to Section III. B. "Cost Share or Matching Requirement" (above), NOAA requires non-federal cost-sharing at a minimum 1:1 ratio of required matching contributions to federal funds. These funds or other resources should improve cost-effectiveness and further encourage partnerships among government, management, industry, and academia. Applications that provide documentation of secured match, or provide a strong justification for waiving the match requirement, are likely to score higher on this criterion. Applicants can include all matching contributions allocated to their project, however no extra points in this merit review are given for any match above the 1:1 requirement.

Section III.B. of this announcement ("Cost Sharing or Matching Requirements") describes the conditions for waiving the match requirement (or part of the match requirement if some match is able to be secured). In addition to the conditions described in Section III.B., a justified waiver generally demonstrates unusual hardship on and meaningful attempts by the applicant to secure 1:1 matching contributions or cost-share partnerships. Applicants should make every effort to meet the match requirement. Match waivers are not common, and are

approved at NOAA’s discretion. (5 points)

- The proposed budget is sufficiently detailed, realistic, and reasonable. The budget breakdown and justification is organized by object class as listed on form SF-424A, and cost share or match is clearly identified. (5 points)

5) Environmental Compliance and Data Management (5 points)

- Whether the applicant provides sufficient information to complete a NEPA review. This includes maps of the study area (including coordinates of sampling locations), list of potentially affected species (positive or negative), project timing (e.g., when will field samples be collected), permits needed, how field research will be conducted (e.g., sampling from a boat, a bridge, shoreline, etc.; equipment used to collect samples; environmental compartments sampled; etc.), and other project requirements detailed in Sections IV.B.2. and VI.B.10. This also includes the extent to which the applicant provides assurances that implementation will meet all federal, state, and local environmental laws. Applications submitted with evidence of completed environmental assessments, completed consultations and/or secured permits, and that demonstrate that proposed debris research activities are legally permissible in the project area are likely to score higher on this criterion. (4 points)

- The proposal includes a Data Management Plan including descriptions of the types of environmental data and information created during the course of the project; the tentative date by which data will be shared and location of data repository; the standards to be used for data/metadata format and content; policies addressing data stewardship and preservation; and procedures for providing access, sharing, and security. (1 point)

6) Communication of Results (10 points):

This criterion assesses whether the proposed activities include a diverse and coordinated communication portfolio to share the research findings with multiple target audiences (e.g., natural resource and/or waste managers, scientific community, public, and other stakeholders) and clearly explains how this will be executed. Proposals will be evaluated on the following:

- The level of professional engagement (i.e. presentations of results at relevant scientific venues). This includes the likelihood of project researchers to publish study results in a peer-reviewed scientific journal. (5 points)

- The proposal includes a diverse and coordinated Communications Plan that targets non-

scientific audiences. The extent to which communications specifically targets underserved and underrepresented communities. (5 points)

B. Review and Selection Process

Letters of Intent and full proposal applications will be screened to determine if they are eligible, complete and responsive to this funding announcement. NOAA, in its sole discretion, may continue the review process for an application with omitted documentation or with a minor administrative discrepancy that can be easily rectified or cured. Eligible proposals will then undergo a technical review, ranking, and selection process.

For applications for projects in areas severely affected by natural disasters or unusually disruptive events, NOAA in its sole discretion may allow late application submissions in such cases. Any applicants in project areas severely affected by such events and who are unable to comply with competition deadlines but are interested in submitting a proposal for consideration must inform the agency, in writing, of the circumstances and location of the project and contact the NOAA point of contact listed in Section VII to discuss submission options. Applications will not be accepted under any circumstances once proposal review has begun.

Letters of Intent and full proposal applications will undergo a technical merit review where they will be evaluated by at least three professionally and technically qualified reviewers, and according to the evaluation criteria described in this announcement (see Section V.A.). Reviewers may include NOAA officials, officials from other federal agencies and state agencies with subject matter expertise, (e.g., coastal management agencies and fish and wildlife agencies), and other private and public sector experts. Proposals may be organized into distinct review groups (e.g. based on geography, debris type, project type, or some combination thereof), with reviewers assigned to one or more review groups. Each reviewer will evaluate their assigned proposals and provide individual scores, comments and/or recommendations. Reviewers may discuss applications with each other, but if one or more non-federal reviewers is involved, scoring will be on an individual basis and no consensus advice will be given. Once complete, reviewer comments, project scores, and a rank order for each review group will be presented to the NOAA MDP Selecting Official. Based on the results of the technical merit review, the Selecting Official may recommend proposals for funding to the NOAA Grants Management Division based on those review group rankings. The Selecting Official may recommend proposals for funding out of rank order if justified by any of the selection factors listed below in Section V.C. The Selecting Official may not recommend proposals for funding from all review groups, and conversely, may select multiple awards from the same review group if it is determined they are higher quality proposals.

After the technical merit review is complete, NOAA may conduct a secondary panel review of federal employees with relevant expertise to determine which top-ranked proposals best meet the program's objectives and priorities (Sections I.A. and I.B.). The panel would be presented with the top ranked applications (based on the results of the technical merit review), technical review scores, and comments for each application. The panel would then rate all top ranked proposals on the following scale:

3 (Excellent) - Application exceptionally addresses program priorities outlined in Section I.A. and I.B., and was highly responsive to Evaluation Criteria;

2 (Good) - Application partially addresses program priorities outlined in Section I.A. and I.B. and was strongly responsive to Evaluation Criteria; or

1 (Fair) - Application marginally addresses program priorities outlined in Section I.A. and I.B. and was moderately responsive to Evaluation Criteria.

The panel review rating would then be presented to the Selecting Official in order to determine which applications should be recommended to the NOAA Grants Management Division. The Selecting Official may recommend proposals for funding out of the panel review's rank order if justified by any of the selection factors listed below in Section V.C.

Applicants may be asked to modify objectives, work plans or budgets, and provide supplemental information required by the agency prior to the award. NOAA may select all, some, or none of the applications, or part of any application, ask applicants to work together or combine projects, defer applications for potential future funding if additional resources become available, or reallocate funds to different funding categories, to the extent authorized. The exact amount of funds to be awarded, the final scope of activities, the project duration, and specific NOAA cooperative involvement with the activities of each project will be determined in pre-award negotiations among the applicant, the NOAA Grants Office, and NOAA program staff.

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. 200.205. 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. 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. 200.207. 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. The award decision of the Grants Officer is final.

Applicants may submit comments to the Federal Awardee Performance and Integrity Information System (FAPIIS), accessible from the System for Award Management, about any information included in the system about their organization for consideration by the awarding agency. NOAA will consider any comments by the applicant, in addition to the other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in §200.205.

C. Selection Factors

The proposals shall be recommended in the rank order unless the selection of a proposal out of rank order is justified based on one or more of the following factors:

1. The availability of funding
2. The balance/distribution of funds
    a. Geographically
    b. By institution type
    c. By partner type
    d. By habitat type
    e. By debris type
3. Duplication of other projects funded or considered for funding by NOAA, partner organizations, and/or other federal agencies
4. Program priorities and policy factors as set out in Sections I.A. and I.B. of this announcement
5. The applicant's prior award performance
6. Partnerships and/or participation of targeted groups
7. Adequacy of information necessary for NOAA staff to make a NEPA determination and draft necessary documentation before recommendations for funding are made to the NOAA Grants Management Division.

Therefore, awards may not necessarily be made to the highest-scored proposals. Unsuccessful applicants will be notified that their proposal was not among those

recommended for funding.

D. Anticipated Announcement and Award Dates

Successful applications generally will be identified by May 1, 2021. Typically, the earliest start date for projects will be September 1, 2021, dependent on the completion of all NOAA-applicant negotiations, NEPA analysis and documentation supporting cooperative agreement activities. Applicants should consider this timeline when developing requested start dates for proposed project activities.

VI. Award Administration Information

A. Award Notices

Successful applicants may be asked to modify objectives, work plans, and/or budgets prior to final approval of an award. The exact amount of funds to be awarded, final scope of activities, project duration, and specific NOAA substantial involvement with the activities of each project will be determined in pre-award negotiations between the applicant, the NOAA Grants Management Division, and NOAA program staff. Projects should not be announced or initiated in expectation of federal funding until a notice of award is received from the NOAA Grants Management Division. Award notification will be made electronically from the NOAA Grants Management Division via Grants Online, NOAA's online grants management program.

B. Administrative and National Policy Requirements

1. Department of Commerce Financial Assistance Standard Terms and Conditions:
Successful applicants who accept a NOAA award under this solicitation will be bound by Department of Commerce Financial Assistance Standard Terms and Conditions. See http://www.osec.doc.gov/oam/grants_management/policy/documents/Department%20of%20Commerce%20Standard%20Terms%20Conditions%2030%20April%202019.pdf. This document will be provided in the award package in Grants Online and can also be found at http://www.ago.noaa.gov. If the Department of Commerce publishes revised Standard Terms and Conditions prior to issuance of awards under this solicitation, the revised Standard Terms and Conditions will apply.

2. Special Award Conditions:
In addition, award documents provided by the NOAA Grants Management Division in the Grants Online award package may contain special award conditions limiting the use of funds for activities that have outstanding environmental compliance requirements and/or stating other compliance requirements for the award as applicable, such as the required use of the

NOAA Research Performance Progress Report.

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

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

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

In addition, Department of Commerce regulations implementing the Freedom of Information Act (FOIA), 5 U.S.C. Sec. 552, are found at 15 C.F.R. Part 4, Public Information. These regulations set forth rules for the Department regarding making requested materials, information, and records publicly available under the FOIA. Applications submitted in response to this Notice of Funding Opportunity may be subject to requests for release under the Act. In the event that an application contains information or data that the applicant deems to be confidential commercial information that should be exempt from disclosure under

FOIA, that information should be identified, bracketed, and marked as Privileged, Confidential, Commercial or Financial Information. In accordance with 15 CFR § 4.9, the Department of Commerce will protect from disclosure confidential business information contained in financial assistance applications and other documentation provided by applicants to the extent permitted by law.

6. Certifications Regarding Tax Liability and Felony Criminal Convictions:
When applicable under appropriations law, NOAA will provide certain applicants a form to be completed by the applicant's authorized representative making a certification regarding federally-assessed unpaid or delinquent tax liability or recent felony criminal convictions under any federal law. See https://www.osec.doc.gov/oam/grants_management/policy/documents/FAM%202015-01.pdf.

7. 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 the Department of Commerce 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.

8. Executive Order 12866:
This action has been determined to be not significant for purposes of Executive Order 12866 (Regulatory Planning and Review).

9. Data Management Guidance:

(a) 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 MDP. Data should be available in at least one machine-readable format (Machine-readable means the data are stored on a computer in a digital format whose structure is well described and the data can be read without the aid of a human), preferably a widely-used or open-standard format (An open-standard format is one that does not require proprietary software to be read), and should also be accompanied by machine-readable documentation (metadata), based on widely used or international standards.

(b) Funding recipients are responsible for ensuring that environmental data produced by

the project is discoverable and accessible to the general public in the required timeframes. The NOAA Marine Debris Program recommends that public access to grant-produced data be enabled by one of the following methods (1) data hosting by the NOAA MDP (preferred method; NOAA MDP manages and maintains a public-facing Clearinghouse and is able to ensure grantee compliance with Data Management requirements by housing project data on the Clearinghouse); (2) the recipient establishing their own procedures and hosting capabilities for collected environmental data; or (3) hosting by another authorized organization (such as NOAA National Centers for Environmental Information). Regardless of hosting method, the recipient is responsible for collecting, managing, and appropriately structuring data and metadata. The NOAA MDP does not require any specific data format, access method, or other technical guidance beyond what is described in this section, however the use of open-standard formats and widely used methods is encouraged. The proposal budget may include reasonable costs associated with compliance with this data management guidance. The NOAA MDP encourages grantees to coordinate with NOAA staff on the best approach ways to meet this public access requirement. In some cases, as appropriate, NOAA may request project data and share/post project data on NOAA systems, potentially in addition to the agreed data sharing/access approach. The proposal may request permission not to make data publicly accessible and the proposal should explain rationale for lack of public access, and if funded to obtain approval from Responsible NOAA Officials listed below.

(c) 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 (see Section IV.B.4 above). The Data Management Plan should be aligned with the Data Management Guidance described in this section. 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.

(d) The NOAA MDP may, at its own discretion, make publicly visible the Data Management Plan (and any subsequent revisions or updates) 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.

(e) Applicants 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 one year upon publication. Such manuscripts shall be made publicly available by NOAA one year after publication by the journal. Manuscripts submitted to the NOAA Institutional Repository must also be 508 compliant. For more information about the repository, see https://repository.library.noaa.gov/welcome.

(f) Failing to share environmental data and information in accordance with the submitted Data Management Plan may lead to disallowed costs and be considered by NOAA when making future award decisions.

(g) Information on NOAA's Environmental Data Management Policy is available under: https://nosc.noaa.gov/EDMC/documents/Data_Sharing_Directive_v3.0.pdf

(h) The Responsible NOAA MDP Official for questions regarding this guidance and for verifying accessibility of data produced by funding recipients: Tom Barry, Management and Program Analyst, NOAA Marine Debris Program; tom.barry@noaa.gov.

10. NEPA Requirements:
As stated in Section IV.B., NOAA must analyze the potential environmental impacts, as required by the National Environmental Policy Act (NEPA), for applicant projects or proposals seeking NOAA funding. Detailed information on NOAA compliance with NEPA can be found at the NOAA NEPA website: http://www.nepa.noaa.gov, including NOAA Administrative Order 216-6 for NEPA (http://www.nepa.noaa.gov/NAO216_6.pdf) and the Council on Environmental Quality implementation regulations (http://energy.gov/sites/prod/files/NEPA-40CFR1500_1508.pdf). Consequently, as part of an applicant's award package, and under their description of program activities, applicants are required to provide detailed information on the activities to be conducted, locations, sites, species and habitat to be affected, possible construction activities, and any environmental concerns that may exist (e.g., the use and disposal of hazardous or toxic chemicals, introduction of non-indigenous species, impacts to endangered and threatened species, aquaculture projects, and impacts to coral reef systems). Providing as much detailed information as is reasonable is critical to the NOAA MDP evaluating the significance of a project’s impacts and its readiness to use available funding.

Successful applications cannot be recommended for funding until NOAA completes the NEPA process. In addition to providing specific information that will serve as the basis for any required impact analyses, applicants may also be requested to assist NOAA in drafting

an Environmental Assessment or other NEPA analysis, or provide for NOAA review a copy of an Environmental Assessment that covers the proposed activities, if one exists, if NOAA determines that it is required. This may also be required of applicants proposing marine debris research activities that cannot be categorically excluded from further NEPA analysis or that are not covered by the NOAA MDP's Programmatic Environmental Assessment (PEA) and Finding of No Significant Impact (FONSI). Applicants will also be required to cooperate with NOAA in identifying and implementing feasible measures to reduce or avoid any identified adverse environmental impacts of their proposal. Failure to do will result in denial of an application. Applicants will be notified if additional analysis is required after the peer review stage.

Special award conditions may be imposed limiting the use of funds for activities that have outstanding NEPA compliance requirements and in some cases if additional information is required after an application is selected, funds can be withheld by the Grants Officer under a special award condition requiring the recipient to submit additional environmental compliance information sufficient to enable NOAA to make an assessment on any impacts that a project may have on the environment. Projects that would require permits to complete the project should list them and include the appropriate contact information for each permitting agency, documentation of all permits already secured for the project, and an expected timeline for those permits not yet acquired.

NOAA may make funding recommendations based on the level of effort needed to fulfill NEPA requirements. The NOAA MDP PEA and FONSI can be found on the NOAA MDP website: http://marinedebris.noaa.gov/sites/default/files/mdp_pea.pdf.

It is the applicant's responsibility to obtain all necessary federal, state, and local government permits and approvals for the proposed work to be conducted. Applicants are expected to design their proposed activities to minimize the potential for adverse impacts to the environment. If applicable, documentation of requests for or approvals of required environmental permits should be included in the application package. Applications will be reviewed to ensure that they contain sufficient information to allow NOAA MDP staff to conduct a NEPA analysis so that appropriate NEPA documentation, required as part of the application package, can be submitted to the NOAA Grants Management Division along with the recommendation for funding for selected applications.

11. Minority Serving Institutions:
The Department of Commerce/National Oceanic and Atmospheric Administration (DOC/NOAA) is strongly committed to increasing the participation of Minority Serving Institutions (MSIs), i.e., Historically Black Colleges and Universities, Hispanic-serving

institutions, Tribal colleges and universities, Alaskan Native and Native Hawaiian institutions, and institutions that work in underserved communities.

C. Reporting

Reporting requirements are described at 2 CFR 200.327-.329, 2 CFR Part 170, and in the Department of Commerce Financial Assistance Standard Terms and Conditions. Progress and financial reports are generally due semi-annually and cover 6 month periods, however more frequent reporting may be required. Progress reports are to be submitted to NOAA via NOAA's electronic Grants Online system and are due no later than 30 days after each reporting period ends. Interim reports for the last reporting period may not be required in some cases. A final report is due no later than 90 days after the expiration date of an award. Progress reports may be required to be submitted using a specific format for narrative information. Complete details on reporting requirements will be provided to successful applicants in the award documentation provided by the NOAA Grants Management Division in the Grants Online award package.

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 sub-awards 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 www.fsrs.gov on all sub-awards over $25,000.

VII. Agency Contacts

For further information contact Tom Barry (tom.barry@noaa.gov, 202-870-2863).

VIII. Other Information

Not Applicable.