

## ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY

### EXECUTIVE SUMMARY

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

Funding Opportunity Title: NOAA Science Collaboration Program

Announcement Type: Initial

Funding Opportunity Number: NOAA-NWS-NWSPO-2012-2003074

Catalog of Federal Domestic Assistance (CFDA) Number: 11.462, Hydrologic Research

Dates: Proposals must be received by NOAA no later than 5:00 p.m., EDT, July 20, 2011. Proposals submitted through grants.gov will receive an electronic date stamp to determine timeliness. Any applications received through the mail will be hand stamped for the same purpose.

Funding Opportunity Description: The NOAA Science Collaboration Program represents an effort to support the development of undergraduate, graduate, and postdoctoral researchers and scientists with expertise in NOAA-related sciences. This will be accomplished through collaborations between these scientists and professionals in areas of mutual interest across the full spectrum of NOAA sciences. It is expected that some of the scientists will collaborate on-site at NOAA facilities and laboratories. NOAA will also support associated workshops that will serve to further enhance collaborative relationships.

Through this funding opportunity, NOAA is also interested in supporting research that evaluates the impact of NOAA-related science to society and seeks to find ways to determine how environmental and related sciences can be communicated and utilized more effectively to protect life and property, assist decision makers, and enhance economic development.

## FULL ANNOUNCEMENT TEXT

### I. Funding Opportunity Description

#### A. Program Objective

NOAA's mission is to understand and predict changes in climate, weather, oceans, and coasts; to share that knowledge and information with others; and to conserve and manage coastal and marine ecosystems and resources. NOAA maintains a vision of resilience that will guide the organization and its partners in a collective effort to reduce the vulnerability of communities and ecological systems in the short-term, while helping society avoid or adapt to potential long-term environmental, social, and economic changes. To achieve this vision we must understand current Earth system conditions, project future changes, and help people make informed decisions that reduce their vulnerability to environmental hazards and stresses that emerge over time, while at the same time increase their ability to cope with them.

To move ahead in these areas, NOAA must employ a scientific workforce that is trained and prepared to communicate and collaborate across multiple disciplines. It is just as important that undergraduate and graduate-level students and early-career post-graduate and post-doctoral scientists, who possess expertise and interest in NOAA-related sciences, be provided opportunities to interact and collaborate with NOAA researchers and professionals to enhance understanding and ensure that the Nation's scientists are working to accomplish important goals to preserve and sustain the environment.

Effective science must be well communicated to achieve maximum impact. As research yields better understanding and innovative techniques, decision-makers and the public must be made aware of these advances in a clear and understandable way to ensure that life and property can be protected and the economy grown while sustaining the environment. NOAA will continue the task to address this goal by supporting research which improves understanding and quantification of the societal impact of NOAA-related science and operations and to determine methods for better communication of scientific results and findings.

#### B. Program Priorities

NOAA expects the award recipient to address the following three programmatic areas:

- I. Identify, manage, and develop postdoctoral and visiting scientists with expertise across the full spectrum of NOAA-related sciences who will collaborate with NOAA professionals and other researchers either in NOAA facilities or in other research environments.
- II. Promote undergraduate and graduate exposure and participation in NOAA-related science through the development of innovative workshops and collaboration opportunities with professional researchers and scientists inside and outside of NOAA.

III. Conduct research which improves the understanding and quantification of societal impact of NOAA-related science and operations and determines methods for better communication of scientific results and findings.

Applicants are encouraged to develop innovative methods to achieve these program priorities. We anticipate participation across numerous NOAA programs, offices, and scientific foci. Several collaboration opportunities are listed below, but proposals are not limited to these areas:

National Weather Service (NWS)/Office of Hydrologic Development (OHD)

Within Hydrometeorological Design Studies Center, opportunities exist for visiting scientists to work with OHD researchers on the development of updated precipitation frequency estimates for the Nation, including data collection, quality control, regionalization, frequency distribution selection, frequency calculations, and derivation of short duration estimates, ensuring both internal consistency at observing and spatially interpolated locations. Within the Hydrologic Ensemble Prediction group, visiting scientists may collaborate on projects to develop cutting edge scientific techniques for hydrologic ensemble forecasting. This includes development, enhancement, testing, and evaluation of components such as meteorological ensemble preprocessors, hydrologic ensemble post-processors, verification techniques, and data assimilators. Other opportunities related to hydrometeorological forcing data derivation and hydrologic/hydraulic modeling are also available.

As part of the Integrated Water Resources Science and Services (IWRSS) strategy, OHD is pursuing a multi-agency goal to enable hydrologic forecasting operations and research to fill the following critical gaps: providing new high-resolution forecasts of critical water resource variables to help decision makers optimally manage our increasingly limited water supply; extending river and flood forecasting to provide maps showing forecasted extent and depth of flooding; integrating critical water resources information and providing one-stop shopping for stakeholders; and establishing a multi-agency proving ground to accelerate transition of research to operations. During the course of the NOAA Science Collaboration Program, early career scientists will have opportunities to collaborate with NOAA and other agency scientists and operational staff to conduct research related to this strategy.

NWS/OHD/National Operational Hydrologic Remote Sensing Center (NOHRSC)

NOHRSC's mission is to provide near real time gridded estimates of snowpack state variables to federal, state, commercial, and research customers. NOHRSC operates a spatially distributed full physics snow model that produces 1KM grids for one hour model time steps. Visiting scientists will have an opportunity to collaborate with NOHRSC scientists in a) research of new modeling science, techniques, and procedures; b) software design and development; c) evaluation and further development of the snow model which supports operational river forecasting systems; and d) IT system and security methodologies.

NWS/National Centers for Environmental Prediction (NCEP)/Climate Prediction Center (CPC)

Visiting scientists will have the opportunity to work with CPC scientists to help communities, businesses, and governments understand and adapt to climate-related risks. Visiting scientists will engage CPC staff whose responsibility is to develop a seamless suite of forecasts for Week 2 and beyond to support response and preparedness to changes in climate that incorporate research advances from within NOAA and other partners. Opportunities exist to improve and expand climate modeling and prediction for time scales from weeks and seasons to years and to enhance decision relevant data and information that meets user needs while also integrating social and economic factors into physical science-based products. Visiting scientists may also collaborate with the CPC International Desks to build capacity in developing and emerging countries in areas such as ENSO and precipitation forecasts.

#### NWS/NCEP/Environmental Modeling Center (EMC)

At EMC, visiting scientists will have opportunities to experiment with operational NOAA modeling systems spanning land, atmosphere and ocean. Areas of investigation include advanced data assimilation techniques, model physics development and testing, and dynamic core formulation and advanced numerical grid techniques.

#### NWS/NCEP/National Hurricane Center

Visiting scientist opportunities at NHC are focused on applied research on satellite ocean surface vector wind data and their potential application to operational forecasts. Visiting scientists would be involved in several activities including: 1) evaluation of satellite ocean surface vector wind data from current and future platforms in tropical cyclones and other tropical and sub-tropical meteorological phenomena, 2) developing and demonstrating the utility of ocean surface vector wind data to operational forecasters, 3) developing tools and enhance display capabilities for ocean surface vector wind data, 4) performing validation of model analyses and forecasts of meteorological phenomena with ocean vector wind data and developing/continuing event climatologies based on satellite ocean vector wind data.

#### NWS/Office of the Assistant Administrator

The NWS AA is interested in supporting studies to 1) determine the effectiveness of operational forecast products in communicating risk and uncertainty in products and services for better decision-making by emergency managers, media, the general public, and other entities, 2) conduct cost-benefit analyses of operational products and services, 3) develop educational materials in the social sciences and societal impacts, and 4) participate in existing natural science testbeds or operational proving grounds to evaluate new operational processes (including the integration of social science into new skill sets, communication tools and decision support tools) in an effort to illustrate the value to the general public of incorporating social science in operational products.

#### Office of Oceanic and Atmospheric Research (OAR)/Climate Program Office (CPO)

The goal of this postdoctoral program is to grow the pool of scientists qualified to transfer advances in climate science and climate prediction into climate-related decision framework(s) and decision tools. The program pairs early-career climate scientists with

hosting institutions. The hosts provide the climate research expertise and opportunities for the scientists to immerse themselves in a decision-making culture and learn from each other. CPO plans to support an additional program that will help create and train the next generation of researchers needed for climate studies. It was anticipated that several prominent NOAA climate observing project efforts would generate a tremendous amount of data that would require the attention of an enlarged research community here and abroad. In the larger view, it was necessary to attract some of the new postdoctoral scientists to the community to establish scientific leadership for future programs. The program plans to accomplish this by attracting outstanding postdoctoral researchers in the sciences relevant to the NOAA Climate and Global Change Program. The program supports research on climate variations with time scales of seasons to centuries.

#### OAR/Geophysical Fluid Dynamics Laboratory (GFDL)

Opportunities for visiting scientists to collaborate with NOAA researchers at GFDL under a new award would include: research on high resolution atmospheric models, with a focus on tropical storms and other aspects of the tropical atmosphere; analysis of high-resolution present-day climate simulations using the GFDL HiRAM at 12.5 km resolution; experimental global cloud-resolving experiments with GFDL's HiRAM with improved cloud micro-physics; study of decadal variability and predictability using new mathematical techniques; development of a methodology for optimally estimating parameters for climate models; focus on various issues related to the Atlantic ocean and climate, comparing observed Atlantic ocean circulation and variability to that simulated in models; work on issues related to ocean observations and assimilation for studies of climate variability and change; modeling and analysis of atmospheric chemistry and climate; development of a new parameterization for boundary layers and clouds for CM3; use of ARM observations to evaluate behavior of clouds in GFDL climate models.

#### National Ocean Service (NOS)/Coastal Survey Development Laboratory (CSDL)

The CSDL program builds community interactions by bridging early career scientists with experienced scientists to learn and perform research with NOS scientists. The learning and sharing of ideas continues to strengthen the collaborative ties of the visiting scientists, NOS, the university community, and the public benefits from the advancements from this research and development program. Visiting scientists will have the opportunity to partner with NOS scientists on various research issues related to coastal and oceanic modeling and observational and environmental studies, which help support the health and safety of our nation's coastal ecosystem. Research and development activities include: development of hydrodynamic model-based forecast systems; development of tidal models; development of coupled storm surge, tidal and wave inundation modeling and forecast capabilities; and coupling of hydrodynamic and ecological models for short-term coastal forecasting of water quality and for longer-term projections of the impacts of climate change and sea level rise.

#### NOS/National Geodetic Survey (NGS)

NGS provides the framework for all positioning activities in the Nation. The foundational

elements - latitude, longitude, elevation and shoreline information - contribute to informed decision making and impact a wide range of important activities including mapping and charting, flood risk determination, transportation, land use and ecosystem management. NGS' authoritative spatial data, models and tools are vital for the protection and management of natural and manmade resources and support the economic prosperity and environmental health of the Nation. Opportunities will be available to early career scientists to collaborate with NGS professionals in projects consistent with the NGS mission.

National Environmental Satellite, Data, and Information Service (NESDIS)/ Center for Satellite Applications and Research (STAR)

At NESDIS STAR, opportunities will be available in the Ocean Surface Winds Project. This effort involves the development and validation of new and existing satellite microwave remotely-sensed ocean surface wind products from active (i.e., QuikSCAT, ASCAT, and OSCAT) and passive (i.e., WindSat and AMSR-2) sensors, and the development of methodologies for proper utilization of these products. The project works closely with international partners, such as EUMETSAT, JAXA and ISRO, in addition to NASA and university partners. Additional areas for collaboration fall in the area of intelligent data system design and development. This effort involves the design and development of database management schemes. The ever growing voluminous amounts of environmental remote sensing satellite data presents a challenge when it comes to sorting and extracting information to address a specific problem (time, geographic location and data type). This effort aims to address these challenges to benefit the broader satellite data community.

NOAA/National Ice Center (NIC)

Through a new award, NOAA/NIC will support postdoctoral research to investigate sea ice forecasting capabilities, combine different remote sensing products, participate in field work and assist in the satellite data processing, participate in-situ data comparison studies, and verify satellite results. Research will be conducted at NOAA/NIC and will collaborate with the University of Washington Polar Science Center, the California Institute of Technology's NASA Jet Propulsion Laboratory and the U.S. Army Corps of Engineers Cold Regions Research and Engineering Laboratory.

NOAA Workshop Support

NOAA plans to provide support to establish forums and workshops complementary to NOAA operational and science programs that host visiting scientist and fellows. Through these activities, the community has the opportunity to understand the impacts of NOAA-related science on technology, infrastructure and the economy, as well as improve operational science, products, services, and applications to serve a broad and growing user community.

### C. Program Authority

The program authorities for this program are as follows: 15 U.S.C. § 313, 49 U.S.C. 47720(b), 15 U.S.C. 2904, 15 U.S.C. 2931-2934.

## II. Award Information

### A. Funding Availability

The total funding amount available for this program is anticipated to be approximately \$60,000,000 over the course of five years. It is expected the yearly funding request should be fairly uniform throughout a multi-year project period; however, funding variations are acceptable. Funding for Program Priority III (Conduct research which improves the understanding and quantification of societal impact of NOAA-related science and operations and to determine methods for better communication of scientific results and findings) is limited to no more than \$750,000 per project year. We anticipate making 1 award.

### B. Project/Award Period

This program announcement is for support of a program for up to a 5-year period, with an anticipated start date of October 1, 2011, unless otherwise directed. When a proposal for a multi-year award is approved, funding will initially be provided for only the first year of the program. If an application is selected for initial funding, the NOAA has no obligation to provide additional funding in connection with that award in subsequent years. Funding for each subsequent year of a multi-year proposal is at the discretion of NOAA. It will be contingent upon satisfactory progress in relation to the stated goals of the proposal and the availability of funds. Applications must include a program narrative and a budget for the entire proposed award period broken out in yearly periods.

### C. Type of Funding Instrument

The funding instrument used for this program will be a cooperative agreement since several NOAA organizations and programs will be substantially involved in working with the award recipient. An example of substantial involvement includes, but is not limited to, collaboration between a postdoctoral scientist interacting with a NOAA research scientist on a project of joint interest.

## III. Eligibility Information

### A. Eligible Applicants

Eligibility is limited to non-Federal public and private, non-profit colleges and universities which offer advanced degrees in NOAA-related sciences, consortia of non-profit academic institutions of higher learning, and non-profit research institutions. Applications will only be accepted from single institutions. Multi-institution proposals will not be accepted.

## B. Cost Sharing or Matching Requirement

No cost sharing is required under this program.

## C. Other Criteria that Affect Eligibility

None.

# IV. Application and Submission Information

## A. Address to Request Application Package

The standard application package is available at <http://www.grants.gov>. For applicants without internet access, an application package may be received by contacting Sam Contorno, NOAA/NWS, 1325 East-West Highway, Room 8346, Silver Spring, Maryland 20910, Phone: 301-713-0640, ext. 163, email: [samuel.Contorno@noaa.gov](mailto:samuel.Contorno@noaa.gov).

## B. Content and Form of Application

Proposals should total no more than 45 pages in length, single spaced. Additional pages will not be considered during proposal evaluation. It is strongly recommended that Times New Roman 12 point font, or an equivalent, be used. Federally mandated forms, tables of contents, and any letters of support are not included within the page count, but all other information is.

Multi-year proposals up to a maximum of five years will be considered; however, funding beyond the first year will be dependent upon satisfactory performance and the availability of funds. October 1, 2011, is to be used as the proposed start date on proposals unless otherwise directed by the NOAA Program Officer.

The application elements listed below are required before an award can be made. Failure to submit elements 1, 4, and 5 by the deadline will result in the application not being reviewed if the omissions are not corrected prior to the deadline. The program office will make an effort to notify the applicant of any omissions, but there is no guarantee this can occur prior to the application deadline. The aforementioned application elements are as follows:

1. Title Page. The title page must be officially authorized by the institutional representative. The principal investigator (PI) and institutional representative should be identified by full name, title, organization, telephone number, and address. It is requested that the title page list the total amount of requested Federal funds for each budget period.
- 2 Abstract Page. An abstract should be included and should consist of a concise summary of the proposed effort.
3. Results from Prior Research. The results of relevant projects supported by NOAA and other agencies should be described, including their relation to the currently proposed work. Reference to each prior research award should include the title, agency, award number, PIs,

period of award, and total award. The section should be a brief summary and should not exceed two pages total.

4. Project description. The proposed project must be completely described, including identification of the problem; scientific objectives; proposed methodology; relevance to NOAA science; scientific merit; past collaborations with NOAA; cost effectiveness of program; and the program priorities listed above. Benefits of the proposed project to the general public and the scientific community should be discussed. A year-by-year summary of proposed work must be included.

5. Budget and Proposed Budget Justification. Applicants must submit a Standard Form (SF) 424, Application for Federal Assistance, including a detailed budget using the SF 424A, Budget Information--Non-Construction Programs. (The forms are available on grants.gov.) Pay careful attention to show the yearly budget breakout on the SF 424A for multi-year proposals. In addition, the body of the proposal should include a separate table showing total and annual budgets (if multi-year) corresponding with the project description. Additional text to justify expenses should be included as necessary.

6. Vitae. Abbreviated curriculum vitae are sought with each proposal. Reference lists should be limited to all publications in the last three years with up to five other relevant papers.

7. Current and Pending Support. For each investigator, submit a list which includes project title, supporting agency with grant number, investigator months, dollar value, and duration. Requested values should be listed for pending support.

This program does not require any NEPA questions to be answered as part of the application.

#### C. Submission Dates and Times

The deadline for receipt of proposals at the NOAA/NWS office is 5:00 p.m., EDT, July 20, 2011. For proposals submitted through grants.gov, a date and time receipt indication is included and will be the basis of determining timeliness. Hard copy proposals will be date and time stamped when they are received in the program office and must meet the same deadline referenced above. Proposals received after the deadline will be rejected/returned to the sender without further consideration.

#### D. Intergovernmental Review

Applications under this program are not subject to Executive Order 12372, Intergovernmental Review of Federal Programs.

#### E. Funding Restrictions

Funding beyond the first year will be dependent upon satisfactory performance and the continued availability of funds.

## F. Other Submission Requirements

None.

Proposals should be submitted through [www.grants.gov](http://www.grants.gov). For those organizations without internet access, proposals may be sent to Sam Contorno, NOAA/NWS, 1325 East-West Highway, Room 8346, Silver Spring, Maryland 20910.

## V. Application Review Information

### A. Evaluation Criteria

The evaluation criteria and weighting of the criteria are as follows:

1. Importance/Relevance and Applicability of Proposal (25 percent): This criterion ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, federal, regional, state, or local activities. For the NOAA Science Collaboration Program competition this includes:

What is the likelihood that the proposed scientific collaborations will develop researchers across the full spectrum of NOAA-related sciences with a stronger understanding of these sciences and NOAA fields of work?

Can the proposed research activities lead to improved understanding of NOAA-related science by society?

What is the degree and quality of collaboration with multiple NOAA units throughout the project?

2. Technical/Scientific Merit (20 percent): This criterion assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives. For the NOAA Science Collaboration Program competition this includes:

a) Was a sound strategy developed to identify, develop, and manage the scientists that will enter the program and work with NOAA professionals across numerous science areas?

b) Were focused scientific objectives and strategies, including data management considerations, project milestones, and timelines used?

3. Overall Qualification of Applicants (25 percent): This criterion ascertains whether the applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project. For the NOAA Science Collaboration Program competition this includes:

a. Do PIs clearly document past experience with identifying, developing, and managing undergraduate, graduate, and postdoctoral scientists in NOAA-related science and have the technical expertise to conduct research in the societal related impacts of environmental and related science?

b. Have past experiences been successful?

c. Are the PIs and scientists brought into the program likely to maintain effective and

consistent interactions with NOAA professionals throughout the course of the proposed research program?

d. Have PIs demonstrated the ability to conduct successful research?

4. Project Costs (15 percent): This criterion evaluates the budget to determine if it is realistic and commensurate with the project needs and time-frame. For the NOAA Science Collaboration Program competition this includes:

a. Is there an efficient use of proposed award funds to identify, develop, and manage collaborating scientists entering the program?

b. Do the PIs demonstrate the ability to leverage other resources as necessary?

5) Outreach and education (15 percent): NOAA assesses whether this project provides a focused and effective education and outreach strategy regarding NOAA's mission to protect the Nation's natural resources. For the NOAA Science Collaboration Program competition this includes:

a. Will scientists entering the program develop a richer understanding and knowledge of NOAA-related science?

b.) Will research results be communicated in an effective way to develop an awareness of environmental sciences and the potential impact on society?

## B. Review and Selection Process

An initial administrative review/screening is conducted to determine compliance with requirements/completeness. All proposals will be evaluated and individually ranked in accordance with the assigned weights of the above evaluation criteria by an independent peer panel review. Four to ten NOAA employees, primarily representing units that will likely be involved with scientific collaborations with the applicant, may be used in this process. The merit reviewers' ratings are used to produce a rank order of the proposals. The Selection Official selects proposals after considering the peer panel reviews and selection factors listed below. In making the final selections, the Selecting Official will award in rank order unless the proposal is justified to be selected out of rank order based upon one or more of the selection factors.

## C. Selection Factors

The Merit review ratings shall provide a rank order to the Selecting Official for final funding recommendations. The Selecting Official shall award in the rank order unless the proposal is justified to be selected out of rank order based upon one or more of the following factors:

1. Availability of funding.

2. Balance/distribution of funds:

a. Geographically.

b. By type of institutions.

- c. By type of partners.
  - d. By research areas.
  - e. By project types.
3. Whether this project duplicates other projects funded or considered for funding by NOAA or other Federal agencies.
  4. Program priorities and policy factors.
  5. 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 Grants Officer.

#### D. Anticipated Announcement and Award Dates

Subject to the availability of funds, review of proposals will occur during July and August 2011, and funding should begin during October of 2011. October 1, 2011, should be used as the proposed start date on proposals, unless otherwise directed by the Program Officer.

## VI. Award Administration Information

### A. Award Notices

Successful applicants may be asked to modify objectives, work plans, or budgets prior to final approval of an award. The exact amount of funds to be awarded, the final scope of activities, the project duration, and specific NOAA cooperative involvement with the activities of each project will be determined in pre-award negotiations among the applicant, the NOAA Grants Office, and NOAA program staff. Projects should not be initiated in expectation of federal funding until a notice of award document is received from the NOAA Grants Office. Unsuccessful applicants will be notified that their proposals were not selected.

### B. Administrative and National Policy Requirements

1. The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements: Administrative and national policy requirements for all Department of Commerce awards are contained in the Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register notice of February 11, 2008 (73 FR 7696). A copy of the notice may be obtained at <http://www.gpoaccess.gov/fr/search.html>.

2. Limitation of Liability: In no event will NOAA or the Department of Commerce be responsible for application preparation costs if these programs fail to receive funding or are canceled because of other agency priorities. Publication of this announcement does not

oblige NOAA to award any specific project or to obligate any available funds.

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

4. Executive Order 12906: The recipients must comply with Executive Order 12906 regarding any and all geospatial data collected or produced under grants or cooperative agreements. This includes documenting all geospatial data in accordance with the Federal Geographic Data Committee Content Standard for digital geospatial data. The Program uses only the existing NOAA Federal financial assistance awards package requirements per 15 CFR parts 14 and 24.

5. Data, Databases, and Software: The rights to any work produced or purchased under a DOC Federal financial assistance award are determined by 15 CFR § 24.34 and 15 CFR § 14.36. Such works may include data, databases or software. The recipient owns any work produced or purchased under a DOC Federal financial assistance award subject to DOC's right to obtain, reproduce, publish or otherwise use the work or authorize others to receive, reproduce, publish or otherwise use the data for Government purposes.

6. Copyright: The recipient may copyright any work produced under a DOC Federal financial assistance award subject to DOC's royalty-free nonexclusive and irrevocable right to reproduce, publish or otherwise use the work or authorize others to do so for Government purposes. Works jointly authored by DOC and recipient employees may be copyrighted but

only the part authored by the recipient is protected because, under 17 U.S.C. § 105, works produced by Government employees are not copyrightable in the United States. On occasion, DOC may ask the recipient to transfer to DOC its copyright in a particular work when DOC is undertaking the primary dissemination of the work. Ownership of copyright by the Government through assignment is permitted by 17 U.S.C. § 105.

### C. Reporting

Award recipients will be required to submit financial and performance (technical) reports. These reports are to be submitted electronically through the NOAA Grants Online system on a semi-annual basis. All financial reports are routed directly to the NOAA Grants Officer. Performance reports are routed to the NOAA Program Officer.

## VII. Agency Contacts

The point of contact is Sam Contorno, NOAA/NWS; 1325 East-West Highway, Room 8346; Silver Spring, Maryland 20910-3283, or by phone at 301-713-0640 ext. 163, or via email at [samuel.contorno@noaa.gov](mailto:samuel.contorno@noaa.gov).

## VIII. Other Information

To use [grants.gov](https://grants.gov), applicants must have a Dun and Bradstreet Data Universal Numbering System (DUNS) number and be registered in the Central Contractor Registry (CCR). Allow a minimum of five days to complete the CCR registration. [Note: Your organization's Employer Identification Number (EIN) will be needed on the application form.] Applicants are strongly encouraged not to wait until the application deadline date to begin the application process through [grants.gov](https://grants.gov).